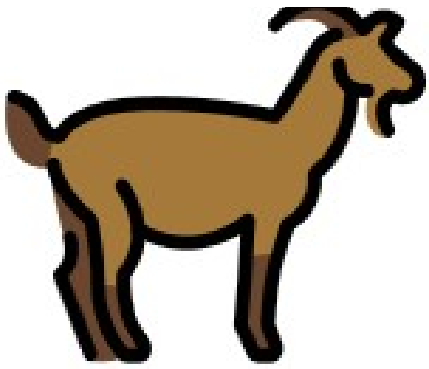
Global
INNOVATION TRADE



Organization of a goat farm and milk processing complex

June 2023.

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1. Summary of the investment project

Project name: Organization of a goat farm and milk processing complex.

Initiator of the project: To be clarified.

Project Location: Kamashi District, Kashkadarya Region.

Organizational and legal form of realization of the project: Limited Liability Company.

The essence of the project:

Project Objectives:

- Creation of a goat farm equipped with the latest technological equipment and meeting modern world standards for milk production and processing;
- creation of conditions for reproduction and renewal of livestock, providing conditions for breeding repair youngsters on the farm;
- Creation of a goat milk processing complex equipped with the latest technological equipment and complying with modern world standards of milk production and processing;
- Ensuring conditions for obtaining and storing goat milk that meet the requirements of domestic and international standards;
- developing a technological process for the production of whole-milk products and high-quality cheese from goat's milk;
- organization of highly profitable dairy production, including by minimizing operating expenses for farm operation through automation of key business processes;
- Organization of product sales channels by concluding direct contracts with trade networks, working with distributors, in the future - the development of its own branded network.

Project Objective:

Under the project, it is planned to build a goat farm for 6,400 heads and a complex for processing goat milk with a milk processing volume of 56,676 thousand liters in 2031 (at the end of the project). It is planned to receive proceeds from realization of production of the project in the amount of 30 015,228 thousand dollars in 2031. The planned profitability of sales at the end of the project will be 43%.

The type of project and how to achieve the goal:

In order to achieve the objectives it is planned to build a new modern complex, technologically equipped according to the latest European norms. The economic effect of production will be achieved through the use of advanced technologies of production, milk processing and building a competent structure of production management, quality control and product sales. The technology acquired by the enterprise and its human potential will allow it to achieve the highest performance indicators and ensure its prosperity in the future.

In the future the company plans to create a vertically integrated complex, which consists of several interacting objects. The complex will consist of a dairy plant, enterprises for the production and processing of finished products, laboratory complex, auxiliary departments: areas for cooling milk and cheese, area of accelerated maturation of cheese, trading house.

Timeline and phases of the project

Table 1: Stages and timing of the project

Report options	Units of measure	Values
Date of the report		11.06.2023
Units of measure of monetary indicators		thousand dollars.
Date of current reporting		11.06.2023
The beginning of the period in which the Bank provides funding		01.01.2024
Beginning of the period in which the requested Bank loans will be repaid in full		01.12.2031
Stage 0 (retro period)		
The unit of measurement of time intervals in the simulation of processes in the first stage		month
Number of retro-period intervals	month(s)	12
Step 1		
The unit of measurement of time intervals in the simulation of processes in the first stage		month
Number of intervals of the first stage	month(s)	22
Start of step 1		01.10.2023
End of step 1		31.07.2026
Step 2		
The unit of measurement of time intervals in the simulation of processes in the second stage		month
Number of intervals of the second stage	month(s)	77
Start of step 2		01.08.2026
End of stage 2 (end of forecast period)		31.12.2031

Source: Global Innovation Trade calculations based on Global Innovation Trade calculation tables

Project financial resources

The total project cost is $22,567,884,000, including $19,753,332,000 in capital costs and $2,814,552,552,000 in operating costs.

By the end of December 2023, the amount of work performed using own funds will be $907,152,000, including investments in design - $250,536,000, construction and installation work - $656,616,000.

The project will require $21,660,732,000 to continue for the period 2024-2025, including $18,846,18,000 for capital expenditures and $2,814,552,552,000 for operating costs. - to cover the running costs of the project.

Table 2. Capital costs of the project, thousand dollars.

No. n/a	Name works/services/goods	2024	2025	2026	Total
1	**Construction costs buildings and structures**	**907,2**	**10233,7**	**3856,5**	**14997,3**
1.1	- Designing	250,5	0,0	0,0	250,5
1.2	- Construction and installation works	656,6	6134,3	2023,9	8814,8
1.3	- Equipment and commissioning	0,0	4099,4	1832,5	5932,0
2	**Acquisition of livestock**	**0,0**	**0,0**	**2850,9**	**2850,9**
3	**Acquisition of equipment**	**0,0**	**0,0**	**1905,2**	**1905,2**
Total		**907,2**	**10233,7**	**8612,5**	**19753,3**

Source: Global Innovation Trade data

Project financing scheme

Total project funding is $22,567,884,000, including:

- borrowed funds of the investment loan in the amount of $15,802.668 thousand;
- own funds for co-financing investments in the amount of 3,950.664 thousand dollars;
- own funds to ensure current operations and payments on the loan at the initial stage of the project in the amount of 2,814,552 thousand dollars.

The financing structure of the project is shown in the figure below.

Investment loan in the amount of 15,802.668 thousand dollars is scheduled for January 2024 for a period of 8 years at 13% per annum with deferred payments on principal debt for 2 years.

The annual loan disbursement and repayment schedule is shown in the table below.

Table 3. Loan disbursement and repayment schedule, thousand dollars.

Indicator	2024	2025	2026	2027	2028	2029	2030	2031
Amount of credit	7219,2	8583,4	0,0	0,0	0,0	0,0	0,0	0,0
Payments for the main loan debt	0,0	0,0	2633,8	2633,8	2633,8	2633,8	2633,8	2633,8
Interest payments	525,9	1639,1	1792,9	1469,4	1145,9	822,3	498,8	175,3
Total payments for credit	**525,9**	**1639,1**	**4426,7**	**4103,2**	**3779,6**	**3456,1**	**3132,6**	**2809,0**

Source: Global Innovation Trade calculations

Investment of own funds is planned at the expense of shareholder financing in the amount of $6,765,216 thousand, including $3,950,664 thousand for co-financing of investments, $2,814,552 thousand for ensuring current operations and payments on the loan at the initial stage of the project.

The main estimated performance indicators of the project are presented in the table below.

Table 4: Investment Performance Indicators

Indicators	Values
Accepted discount rate	*14,0%*
Discounted net cash flow (NPV) (rate of 14.0%), th.	11 545,7
Discounted net cash flow (NPV) excluding TV, thousand dollars.	11 545,7
Internal rate of return (IRR)	*31,84%*
Coverage ratio during the term of the loan LLDSCR	*2,66*
Project payback period (PBP), years	
NCFT>0	5,8
including interest (NCFT'>0)	5,8
Discounted payback period of the project (DPBP), years including retro-period	
discounted flow generated by the Project DOCF>0	7,7
the discounted flow generated by the Project including interest and loan fees (DOCF'>0)	8,8

Source: Global Innovation Trade calculations based on Global Innovation Trade calculation tables

When investing $22,567,884 thousand in the project, the net discounted income (NPV) of the project is 11,545.74 thousand dollars, and the internal rate of return (IRR) is 31.8%, which is significantly higher than the discount rate. The investment in the project will be recouped in April 202331, and the discounted payback period, taking into account interest and credit fees, is May 2031.

The debt service coverage ratio over the term of the loan will be 2.66.

When launching a new project for the production of goat's milk products, a number of major risks must be taken into account:

- High level of competition, especially in the medium price segment of products.
- The influence of the seasonal factor on the quality of the cheese produced. Cheese quality is directly dependent on milk, the biochemical composition of which is constantly changing as animals eat different herbs in different seasons. To minimize this risk, it is necessary to carefully monitor the stability of the diets of milking animals.
- Failure to fulfill sales plans. It is necessary to work actively to find new sales channels, establish feedback with the end consumer, find out his preferences and wishes, competent interaction of the sales team with customers.
- The main sales channel is retail, which is difficult for a new, unknown producer to get into. Plus, there is the risk of becoming dependent on chains in terms of assortment and price positioning, which can lead to the loss of the uniqueness of the project's offer.
- The risk of substitution on the retailer's shelf with promotional noname products from an unknown manufacturer, which can lead to a loss of sales.
- Incorrect planning of production and sales, the formation of residual products that do not have a potential buyer. Optimally, the potential of the manufacturer's customer base should exceed the volume of planned shipments by at least 30%.
- The decline in the standard of living of the population, which affects the volume of consumption of goat's milk products, which in the minds of consumers refers to premium products.

2. The essence of the proposed project

Project Location

The production site is located in Kashkadarya region, Kamashi district at the following address: Oinakul village. The district occupies an area of more than 2.66 thousand square kilometers. It is located 60 kilometers from Karshi city and 485 kilometers from Tashkent. The district is connected to Karshi city by a road1.

The population of the Kashkadarya region as of 2023 is 3.5 million people, with the population of the Kamashin region itself being 286,000.

Figure 1: Project location

Source: Yandex.maps

2.1. Description of the project and anticipated products

Under the project, it is planned to organize a goat farm with pedigree breeding Zaanenskaya goats with an average annual herd of 6,400 milking cows and goat milk processing complex with a capacity of up to 5,500 tons per year (~16 tons per day).

As a result of the project will be built goat farm with production capacity up to 100 tons of meat per year and the production of whole-milk products (milk, yogurt, sour cream cottage cheese) with capacity up to 1.5 tons per year and cheese capacity up to 0.5 tons per year of goat milk.

For this purpose, it is planned to raise a bank loan of $11.5 million for up to six years at an interest rate of 5% per annum and founders' loans of $2.7 million for up to seven years at an interest rate of 2/3 of the Central Bank key rate.

Table 5. List of products and manufacturer's base prices for 2027.

*	Unit.	Sales price per unit
Goat/goats for sale	($/head)	128,28
Culled goats for sale	($/head)	128,28
Culled goats/goats for sale	($/head)	89,80
Breeding out of the herd	($/head)	89,80
Goat milk	($/litre)	0,88
Milk 3.2% 0.9 g	($/pc).	1,20
Milk 3.2% 0.5 g	($/pc).	0,71
Milk 1.5% 0.9 g	($/pc).	1,03
Milk 1.5% 0.5 g	($/pc).	0,61
Kefir 2.5% 0.9 g	($/pc).	1,15
Kefir 2.5% 0.5 g	($/pc).	0,67
Yogurt 2.5% 0.1 g	($/pc).	0,24
Yogurt 1.5% 0.45 g	($/pc).	0,76
Yogurt 1.5% 0.25 g	($/pc).	0,46
Sour cream 20% 0.35 g	($/pc).	1,21
Sour cream 20% 0.2 g	($/pc).	0,72
Cottage cheese 1.5% 0.25 g	($/pc).	1,46
Cottage cheese 10% 0.25 g	($/pc).	2,09
Soft cheese (Camembert)	($/kg)	17,44
Semi-soft cheese	($/kg)	9,97
Semi-hard cheese (Gouda, Edam)	($/kg)	19,93
Hard cheese (Emmental type)	($/kg)	19,93
Soft cheese (Ricotta)	($/kg)	9,97

Source: Global Innovation Trade data

2.2. Description of the technological process

The technological process of animal breeding in this project involves the use of dairy goats of the Saanen breed, bred by popular selection in the Saanenthal valley, located in the Swiss Alps. In addition to centuries of selection for dairy performance, the breed was positively influenced by exceptionally favorable natural and climatic conditions of the Saanen valley with plenty of alpine pastures and a mild climate.

The constitution of the animals is gentle, dense. The exterior is a classic example of a pronounced dairy type. The skeleton is strong, but not long. The muscles are moderately developed, the skin thin, mobile. The coat is short, consisting of long covering hair.

If the animals are kept in harsh climatic conditions, they may grow a short undercoat. The head is dry, medium in size, and the ears are straight and horned. The animals may be mohawked or horned. The neck sometimes has skin outgrowths, or earrings. The body is long and deep. Limbs properly placed, strong. The suit is often white, sometimes with a light yellow tint.

Figure 2: Saanenese goats

Source: Internet open sources

Black pigment spots occur on the scalp, ears and udder. The udder is spherical or pear-shaped with well-defined nipples. Saanenne goats are among the largest in the world. The adult sows have a height at withers of 74-78 cm, the breeding goats have a height of 84-88 cm. The live weight of the sows is 50-60 kg, in some cases up to 90 kg; the goats weigh 75-85 kg and can weigh up to 100-110 kg.

The dairy productivity of Saanenne goats is the highest in the world. The lactation period lasts 270-360 days. Yawl goats are milked sometimes without a break for two years or more. The yield per lactation is 600-800 kg of milk with a fat content of 3.8-4.5%. If intensive industrial technology is used in keeping and feeding the goats, the average herd productivity can be 1000-1200 kg of milk. The Saanenese breed holds the world record for milk yield of 3507 kg.

Like most dairy goats, the Saanenne goat is highly prolific. On average 160-180 goats are produced from 100 sows. The reproductive rate of goats is high and they can be inseminated at four to six months of age. However the first insemination should not take place before seven or nine months of age. It largely depends on the speed of growth and the degree of development of the goats. The meat productivity is satisfactory.

In addition to good goat housing, adequate nutrition is an important factor for successful goat breeding. Goats are rather undemanding animals, but insufficient or unbalanced feeding often leads to diseases, decreased productivity and reproduction. The project provides for the following basic ration, which will be adjusted on the basis of production indicators.

Table 6: Basic feed ration

Type of feed	Daily requirement, kg							
	Goat producers	Goats	Dairy goats	Dry goats	Young yak (0-2 months)	Goats (3-5 months)	Goats (6-7 months)	Repairs gantry
Vykoovshaya mix	2,5	3,5	3	2,80	0,3	0,03	3	3,5
NMS silo (cornage)	3,5	2,5	3	0,14	0	0,04	1,1	2,5

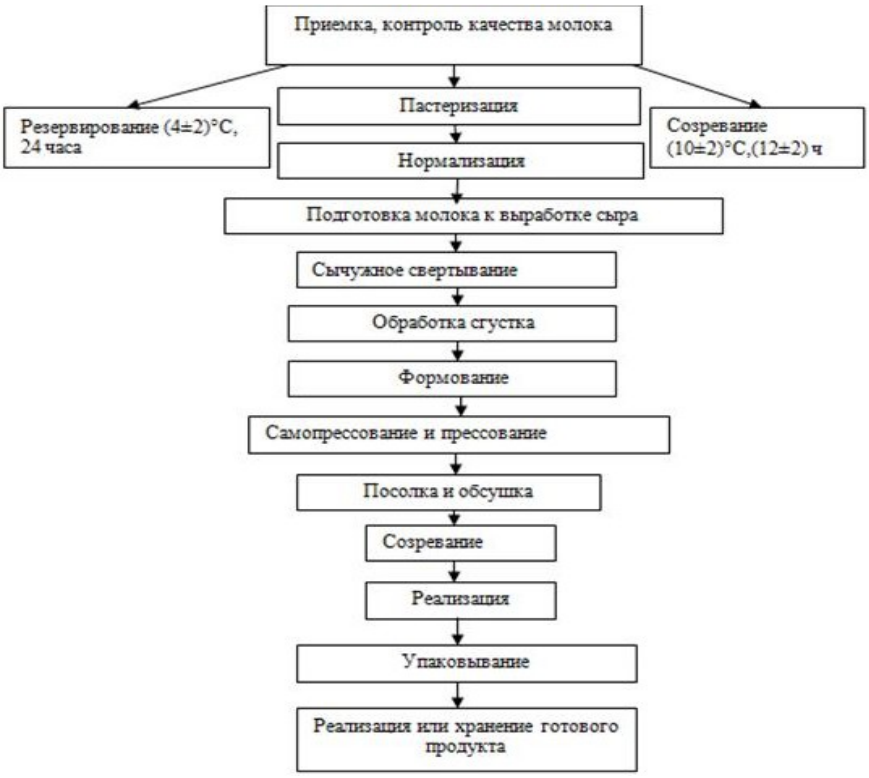
Type of feed	Daily requirement, kg							
	Goat producers	Goats	Dairy goats	Dry goats	Young yak (0-2 months)	Goats (3-5 months)	Goats (6-7 months)	Repairs gantry
Soybean cake	0,44	0,44	0	0,73	0	0	0,3	0,44
Soybean meal	0		0,45	0,24	0	0,02	0	
Barley	0,4	0,4	0,54	0,54	0	0,2	0	0,4
Premix	0,05	0,05	0,04	0,01	0,4	0	0	0,05
Soda	0,01	0,01	0,01	0,01	0	0,01	0	0,01
ZCM	0		0		0,2	0	0	
TOTAL	**6,90**	**6,90**	**7,04**	**4,47**	**0,90**	**0,30**	**4,40**	**6,90**

Sources: Global Innovation Trade data

The implementation of the technological process of cheese manufacturing will be carried out taking into account the requirements of the state and the general technical conditions stipulated by law.

Regardless of the class of cheese and the volume of milk processed, cheese production includes the following stages of the process.

Figure 3: Milk processing sequence



Sources: Global Innovation Trade data

Currently, goat milk is subject to requirements in accordance with the developed technical specifications "Milk of goats. Purchasing Requirements". Milk after milking must be filtered (cleaned) and cooled no later than 2 hours after milking.

Raw milk should have a temperature no higher than +10 ° C when delivered to the dairy industry, and no higher than +6 ° C when delivered to the farm. Freezing of milk shall not be allowed. Milk must be of natural white color, without sediment and flakes.

In this case, raw milk is divided into three grades - the highest, first and second, according to the requirements listed below.

Table 7: Requirements for raw goat milk

Indicators	Norm for varieties		
	higher	first	second
Smell and taste	A faint odor and aftertaste in winter and spring is allowed; at other times - without extraneous odors and aftertastes		
Acidity,^{0} T	14-17	14-17	14-19
Degree of purity according to the standard, not less than group	I	I	I
Bacterial infestation, thousand/cm^3	up to 300	300-500	-
Contents somatic cells, thousand/cm^3 (not more)	1000	1000	1500

Sources: Global Innovation Trade data

Pasteurization changes physical and chemical properties of milk. The optimal mode of pasteurization of milk in cheese production is heating it to a temperature from +70 to +72 °C with holding time from 20 to 25 c. In case of increased bacterial contamination of milk it is allowed to increase pasteurization temperature to +76 °C with the same holding time.

Cheese as a finished product must comply with the standard for chemical composition and organoleptic characteristics. The mass fraction of fat, moisture and salt in cheese is subject to standardization.

Cheese is produced with different mass fraction of fat in the dry matter - 20-60%. The ratio between the main components of cheese - protein, fat, water - has a great influence on the properties and quality of cheese. Thus, fat increases the plastic properties of the cheese mass, gives the cheese a characteristic consistency, is involved in the formation of the taste of cheese. Increasing the protein content with decreased fat promotes the formation of gdolloy consistency, so when reducing the mass fraction of fat in cheeses increase moisture, since moisture increases the elastic properties of the protein gel, giving elasticity to the cheese. Increasing the mass fraction of moisture in cheeses also accelerates ripening and increases the sharpness of its taste.

To produce standard fat cheeses, milk is normalized to a certain fat to protein ratio. Due to the fact that the protein content of milk is difficult to change, normalization to achieve the required ratio of fat to protein is carried out change in the fat content depending on the actual content of protein in the normalized milk (protein is determined by the method of formol titration).

Fat normalization of milk is carried out in the flow with the use of separators-normalizers or mixing in a tank or in the apparatus for the production of cheese grain. After filling them, check the mass fraction of fat in the normalized milk and finally adjust it by adding pasteurized skim milk or cream.

Freshly milked milk does not curdle well with rennet enzymes and is an unfavorable environment for the development of lactic acid bacteria. When making cheese from such milk the clot is flabby, poorly giving the whey, the lactic acid process is slow. To improve the cheesiness of fresh milk, it is subjected to special treatment, i.e. a complex of microbiological, biochemical and physical-chemical processes, which increases its cheesiness. As a result, the lactic acid process is intensified and the quality of the cheese increases.

Increasing the cheeselessness of milk by improving the technological properties is possible with the use of milk ripening. Maturation provides reduction of rennet curdling time and cheese kernel processing, intensification of lactic acid process and proteolysis during cheese maturation as well as improvement of product quality. The traditional regimen for ripening milk in the cheese industry is to mature it at +10 (+2) ° C for 12 (+2) hours with the addition of lactic acid bacteria starter.

In the process of rennet curdling, milk curdling enzymes are used to form a clot - the separation of the dense fraction of milk from the liquid fraction. To form the clot they use:

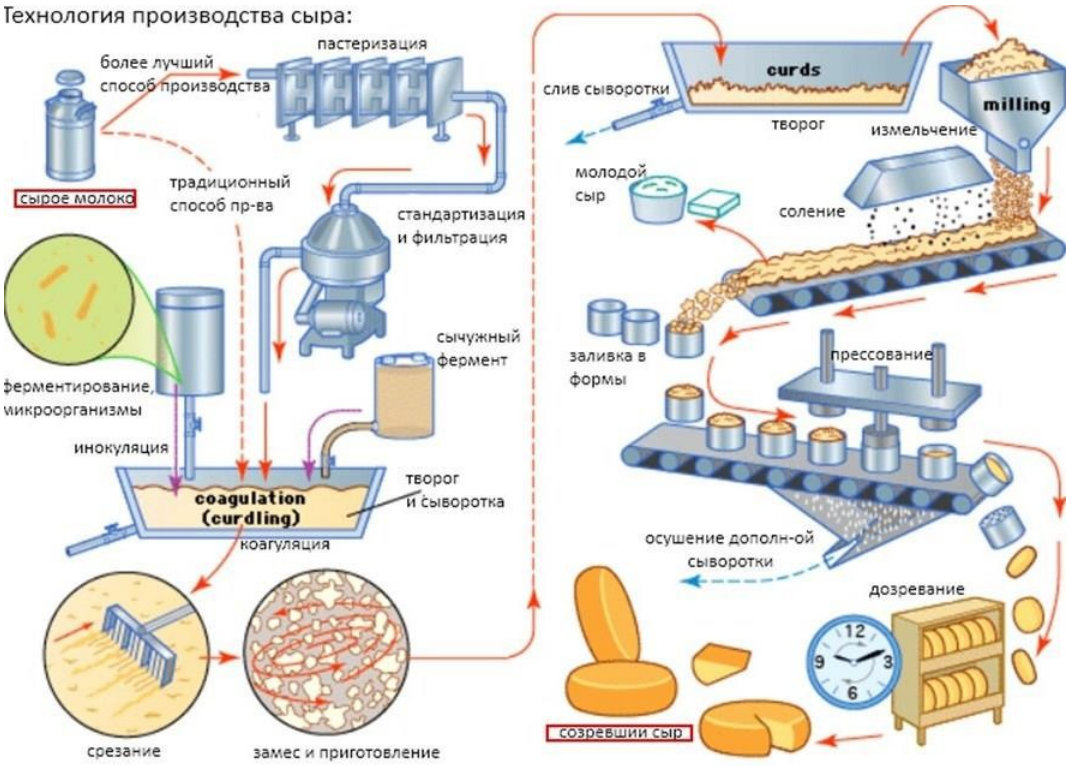
- calf rennet (rennet), prepared from the stomachs of calves. It comes in powdery, pasty, and liquid form;
- microbial rennin (pepsin): it is made from various plants - algae, special mushrooms, etc. It is a vegetarian coagulant;
- chymosin obtained by fermentation: an artificially grown coagulant with a composition identical to that of calf rennet.

The use of a particular coagulant affects the taste of the cheese, the formation of its consistency, gives flavor.

After the milk has fermented, the dense clot is cut and processed:

- The cheese is transferred into molds and allowed to press under its own weight. This is how fresh and fresh aged cheeses, soft cheeses are made: Fromage frais, Chèvre, brynza, feta, Camembert, Brie, etc.;
- slowly stirred so that the lumps shrink and compact (forming a cheese grain), and then transferred to a mold and pressed. This is how dense blue mold cheeses, mozzarella, etc., are made;
- the cheese grain is washed, heated to 40 ° C for a second time and stirred for a long time to make the cheese grain dense and elastic. This is how most hard and semi-hard cheeses are made.

Figure 4. Sequence of technological processes of semi-hard and hard cheese production



Sources: Global Innovation Trade data

Next, the cheese is pressed in a specific mold specially designed for this kind of cheese, and then the cheese is salted - simply sprinkled with salt or kept in a strong brine. After that, the cheese has to mature.

The production of semi-hard/hard cheeses requires their protection against undesirable microflora. Aged cheeses are usually coated with a paraffin alloy or latex coating. This is what protects the cheeses during maturation and prevents the problem of "contamination" of the cheese. Latex coating, paraffin-wax alloy or heat shrink bags can be used as a coating.

Latex coating is applied immediately after the cheese has dried. You can keep it in this coating for up to six months. Wax can be used only after a month of ageing - the cheese needs time to finally dry out. If you wax earlier, the head will start to sweat and swell, which can lead to mold. That is why you should wax cheeses with a good, hard crust.

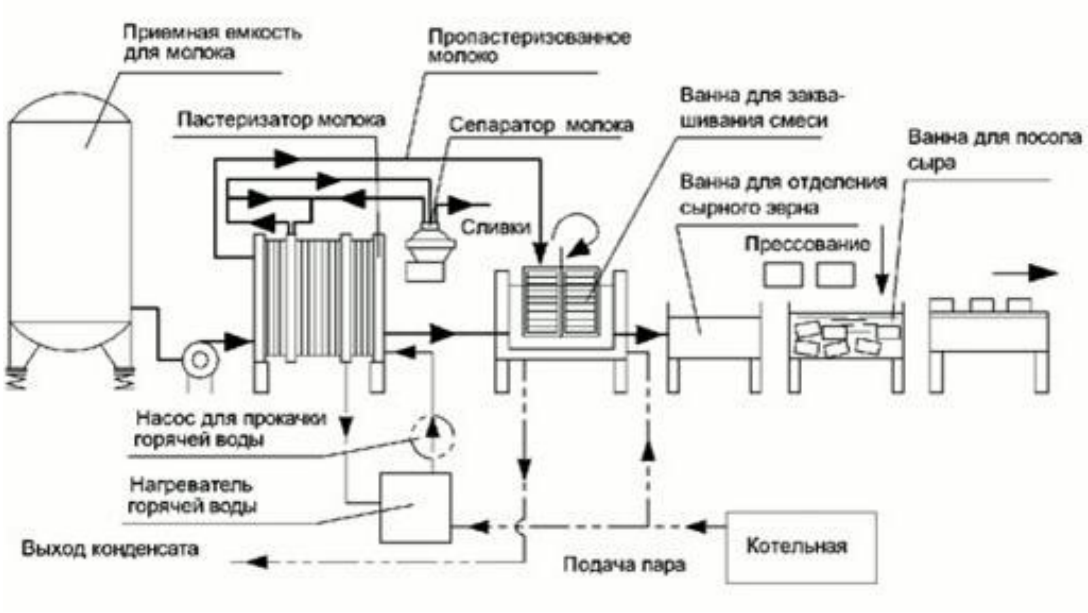
The main factors regulating the development of microflora during ripening of cheeses, and, consequently, enzymatic and biochemical processes in cheese ripening chambers, are:

- air temperature;
- relative humidity;
- duration of maturation;
- exchange rate and air purity.

The ripening conditions for each type or group of cheeses have their own characteristics. For cheeses with a low second heating temperature, the temperature-humidity regime throughout the ripening process has no significant fluctuations. For cheeses with high second heating temperature, the ripening process is divided into several stages, each of which has significant differences in air humidity in the cheese storage facility. Peculiarities of ripening of semi-hard cheeses are due to the need to develop on their surface the microflora of cheese slime.

For cheeses with a high temperature second heating mode is set fractional ripening: after salting and drying of cheeses the temperature in the ripening chamber is +10 ... +12 ° C (10-20 days), then it increases to +18 ... +25 ° C (10-40 days), this is the so-called fermentation chamber, and then to conditioned age temperature again decreases to +10 ... +12 ° C.

Figure 5. Sequence of technological processes for the production of soft cheeses



Sources: Global Innovation Trade data

For cheeses with a low temperature of second heating ripening mode as follows: after salting the first 5-10 days set temperature of +10 ... +12 ° C, then increase it to +14 ... +16 ° C (15-20 days), and then to the end of maturation returns to a temperature of +10 ... +12 ° C. It is allowed to ripen in one mode - at a temperature of +10 ... +12 °C.

Due to the fact that all cheeses will be ripened packed in polymer covers, the relative humidity is not as significant a factor as in the traditional method, and can range from 75-90%.

Chilled and dried air is supplied to the cheese ripening chambers. The relative humidity in the chambers is set by 3-5 times the air exchange per day. Air conditioning is used for this purpose.

The main difference between the production of soft cheeses and hard and semi-hard is a qualitative change in the nature of ripening, caused by the accumulation of large amounts of lactic acid.

Almost all soft cheeses have a delicate and soft consistency, which is largely due to the high moisture content. Due to the presence of whey, the content of lactic sugar in the cheese mass increases, which promotes the development of lactic acid microflora in the first days of maturation of cheeses.

Soft cheeses are formed by pouring cut into pieces of clot or large grains directly into group perforated molds. The whey is separated by self-pressing, and only in the production of certain types of cheese a weak pressing (pressure of 1-5 kPa) is used.

Malting of soft cheeses is also versatile because by the time of salting the acidity of the cheese mass is at 5.0-4.7, which provides suppression of growth of E. coli bacteria. Soft cheeses are produced without ripening (1-2 days), with short ripening (5-10 days) and long ripening (20-45 days).

2.3. Characteristics of the equipment to be purchased

DeLaval will supply and install the necessary technological equipment for goat barns

Table 8: Set of equipment for goat barns for 6,400 head of dairy cattle

Equipment	Set
Set of milking parlor equipment (with delivery and installation): – milking parlor P300SG_2x2x48_DelPro parallel; – automation of milking machines; – tdol pipelines; – milk collection device; – equipment flushing system; – vacuum system; – animal identification and herd management system; – compressed air system; – bucket milking machines; – floor panels of the milking pit; – milk cooling system	2
Farm equipment	1
Equipment for comfort and herd housing for 6,400 heads with delivery and installation	2

Sources: Global Innovation Trade data

The P300SG 2×2x48 Parallel milking parlor is DeLaval's cost-effective automatic group milking system with pivoting clamps. Pivoting booms in the middle of the pit mean that hangers are used on both sides of the milking parlor.

When the animals on one side of the milking parlor are milked, other animals enter or leave the other side of the parlor. This ensures a very high throughput because the hanger section is almost never idle and the turning of the hangers to the other side of the hall is automatic.

Compact and modern parallel milking parlors for goats have been designed with years of experience and designed to provide an ergonomic and safe workplace for milkers. DeLaval bottom milking systems are traditionally the most popular with milk producers. The milking equipment is installed inside the milking pit and protected by a fringe. One or two animals are usually served by one or two hangers.

Milk flows smoothly from the outboard to the milk pipe, keeping the vacuum level low and reducing vacuum fluctuations. The milking pit is open, its sides have a common milk extraction and transport system including milk tdol pipelines, rinsing lines, vacuum lines, tanks for intermediate milk collection and pumping it to the cooling tank.

The milking parlor will be equipped with the AIPro SG herd management system, which allows individual database information on milking, reproduction, feeding, treatment, relocation and other system parameters to be maintained and stored for each animal. ALPRO comes with software to set up milking, feeding or all-in-one configurations including breeding calendar and systems functions. For the most convenient operation, the processor can operate in

combination with a personal computer and the ALPRO Windows program.

With ALPRO Windows, you have access to information on each goat not only for the current year, but also for the entire lifetime of the animal. It is possible to track which lactation stage the selected goat is in and to decide on insemination and other actions. This program allows you to work with the collected information and make daily reports on animal diseases, breeding, feed rations, feed intake, milk production, etc. The program allows you to present most of the recorded parameters in a clear graphical form.

The P300SG 2×2×48 parallel-type milking parlor specification for milking goats with a capacity of 192 places with bottom milking pipe is shown in the table below.

Table 9. Specification of the milking parlor

No. n/a	Name	Quantity, pcs.
1	**Stall equipment for milking parlor P300SG 2x2x48, kt**	**1**
1.1	- Staircase 4 steps	1
1.2	- Stands P300SG, 1x36, right, 35 cm, stainless steel + galvanized.	1
1.3	- Stands P300SG, 1x36, left, 35 cm, stainless steel + galvanized.	1

No. n/a	Name	Quantity, pcs.
1.4	- P300SG Air regulator, 1 button	1
1.5	- P300SG separator in the feeder	36
1.6	- P300SG rack with T-section	12
1.7	- P300SG Rack clamp 45x45, set	12
1.8	- P300SG Rack Bridge 45, 2.4 m	6
1.9	- P300SG rack/tolling clamp 45x49 set	12
1.10	- P300SG tdoll D48, 3 m	10
1.11	- P300SG connection for tdoll D48, 1 m	8
2	**Automation of milking machines, kt**	**1**
2.1	- LK S&G tdollowires EP100B	36
2.2	- Portal ID Gate SG	2
2.3	- PSU MP510SG up to12 suspended part	6
2.4	- Controller SG-LL MP580/680, MM25SG for TF100 (x2)	2
2.5	- S&G tdollowires for ACR	1
2.6	- MM25 cleaning tool	1
2.7	- Transformer 12/14V, 150 VA	1
2.8	- SG sampler	72
2.9	- ALPRO mechanical sensor rotor	2
2.10	- Measuring probe for MM25SG	1
2.11	- Antenna console kit	2
2.12	- Standard set "Comfortable Start	72
2.13	- Alpro WE power supply	1
2.14	- Hall protection 4 transform. x16 seats, 12V	5
2.15	- TF100MLL/Almatic G50-R Suspension Part	36
3	**Milking parlor pipelines, kt**	**1**
3.1	- S&G air filtration ducts	1
3.2	- S&G 2x2 x48 LLDC M63/C40/V75 trunk lines	1
3.3	- S&G cable duct 90/40 mm	2
3.4	- Inlet 90* 16mm/2.5 stainless steel.	72
3.5	- Suction line D52 5m kt.	5
3.6	- Pressure line D25 5m kt.	6

No. n/a	Name	Quantity, pcs.
3.7	- Central vacuum line ave., 110, 6000	4
3.8	- Basic suction line kit 52	1
3.9	- Base discharge line kit 25	1
3.10	- Basic Return Line Kit 25	1
3.11	- Branch 51, 90	1
3.12	- C-profile L-shaped	35
3.13	- C-profile 300 mm	2
4	**Milk collector, kt**	**1**
4.1	- M/receiver SR70 C 55L 3 s	1
4.2	- S&G milk inlets D63 SR50/70 double	1
4.3	- Button StationPLM37-FMP55	1
5	**Equipment flushing system, kt**	**1**
5.1	- Hyginius C200 Automatic Washing Machine	1
5.2	- Interlock sensor (double)	1
5.3	- Vertical flushing tank, stainless steel 320l, without heating	1
5.4	- Tdoll polypropylene 50	1
5.5	- Tdolla, stainless steel, 52, 6000	1
5.6	- Plug 40/34 mm	1
6	**Vacuum system, kt**	**1**
6.1	- Vacuum pump DVP2000NFO 400V complete	2
6.2	- MVR 4000/110 regulator	1
6.3	- Muffler MVR / 100 mm	2
6.4	- Exhaust 75 mm	2
6.5	- Bypass Kit 63-52	1
6.6	- Vac.110 shutoff valve	1
6.7	- Main switch for all vacuum pumps	2
6.8	- PVC adapter 110x50	1
6.9	- PVC tee 110	2
6.10	- PVC plug 50 mm	1
7	**Animal identification and herd management system, kt**	**1**
7.1	- Power cable, Europe	1
7.2	- Uninterruptible power supply	1

No. n/a	Name	Quantity, pcs.
7.3	- System controller + APW 7.0+RFC	1
7.4	- Manual ear tag reader	1
7.5	- Consulting - training in the management program	1
7.6	- Thunderbolt "Processor ALPRO"	1
7.7	- HDX ISO ear tag, reusable, yellow AF	6 400
7.8	- Back plate ear tag, yellow AF	6 400
7.9	- GEPE Ear Tag Pliers	1
8	**Compressed air system, k-t**	**1**
8.1	- Comr.GX11-FF-10 on rev.	1
8.2	- DDp35+ fine filter, up to 1 μm, 35L/s	1
8.3	- Automatic circuit breaker 63A,3f, 4.5 kA	1
8.4	- Damper	1
8.5	- Electronic automatic drain valve	1
8.6	- Compressed air reservoir 500 l	1
8.7	- Silicone dryer CD 50	1
9	**Bucket milking machines, kt**	**3**
9.1	- Stainless steel bucket lid with HP102	3
9.2	- Stainless steel bucket 20 l	3
9.3	- Suspension part Almatic G-10	3
10	**Floor panels of the milking pit, kt**	**3**
10.1	- Set of plastic panels 40 pcs. drain floor	3
11	**Milk cooling system**	**1**
11.1	- DXCE 5000 1x44 T100 tank at 5000L(4BIII)	2
11.2	- Plate heat exchanger for water pre-cooling	1
12	**Additional farm equipment**	
12.1	Cremator for 1-2 tons	**1**
12.2	Car weighing room	1
12.3	Machining machine	3
12.4	Animal scales	3
12.5	Insemination equipment	1
12.6	Animal transport carts	2

No. n/a	Name	Quantity, pcs.
12.7	Refrigerators for storing colostrum and veterinary medicines	1
12.8	Infrared lamps for drying goats	12
12.9	Colostrum defrosters	1
12.10	High pressure washer	4
12.11	Foam generator It 50 SCO/50C (Italy)	1
12.12	Gasoline backpack sprayers	2
12.13	Dungeness tractor	1

Sources: Global Innovation Trade data

The specification of comfort and housing equipment for a farm with 6,400 milking goats is shown in the table below.

Table 10. Specification of comfort and maintenance equipment

No. n/a	Name	Quantity, pcs.
1	Sorting gate SG (ear tag left)	2
2	Mobile milking unit MMU 1-2	4
3	Goat drinking station 0-2 months. LKF200	16
4	Drinker for goats C5, with tubular valve	210
5	Drinker C7 for goats	44
6	Circulation-heating system DWH 200 (without plumbing) - 4 rooms	14
7	Horizontal trailed 12 cubic meter feed mixer (main and reserve)	4
8	Related products (washing acid and lye, udder treatment, mastitis test, milk filters, shearing machine, etc.)	2
9	MSB mini goat brush	80
10	VPT ventilation panels with a height of 1525 mm with electric drive - goats. 8 panels x 24 m	4
11	Goats. System of side air inlet valves in winter - 126 pcs. and ventilation shafts with forced exhaust - 12 pcs. of which 2 shafts with motor with frequency drive	4
12	VPT 1525 high electrically operated ventilation panels - gantry. 9 panels x 31.72 м	2
13	Shafts. The system of side air inlet valves in winter - 64 pcs. and ventilation shafts with forced exhaust - 6 pcs. of which 2 shafts with motor with frequency drive	2

No. n/a	Name	Quantity, pcs.
14	VPT 1525 high electrically operated ventilation panels - teenagers. 9 panels x 28 m	2
15	Teenagers. The system of side air inlet valves in winter - 160 pcs. and ventilation shafts with forced exhaust - 16 pcs. of which 2 shafts with motor with frequency drive	2
16	Goats 0-2 months. System of side valves for air inlet in winter - 64 pcs. and ventilation shafts with forced exhaust - 6 pcs. of which 2 shafts with motor with frequency drive	2

Sources: Global Innovation Trade data

Israeli technology will be used in milk processing. The plant is designed to process up to 16 000 liters of goat milk. The complex uses specially developed technologies for goat milk processing, which allow preserving its structure, removing specific odors, preserving the aroma and taste of natural goat milk in dairy products.

Table 11. List of milk processing equipment

Name	Quantity
Milk reception facility	
Centrifugal pump	1 pc.
Filtration system for received milk	1 pc.
Milk receiving tank with cooling	2 pcs.
Milk processing shop	
Milk pasteurization system for products with extended shelf life	1 set.
Milk outlet section on the separator	1 pc.
Leveling tank with product level control 100 l	1 pc.
Milk cooling section	1 pc.
Separator - cream separator SEITAL	1 pc.
Homogenizer	1 pc.
Collection tank for cream, 500 l with cooling	1 pc.
Cream pump	1 pc.
Ice water system	1 set.
Stainless steel pipe and flap system	1 set.
Electrical communications and control panel	1 set.

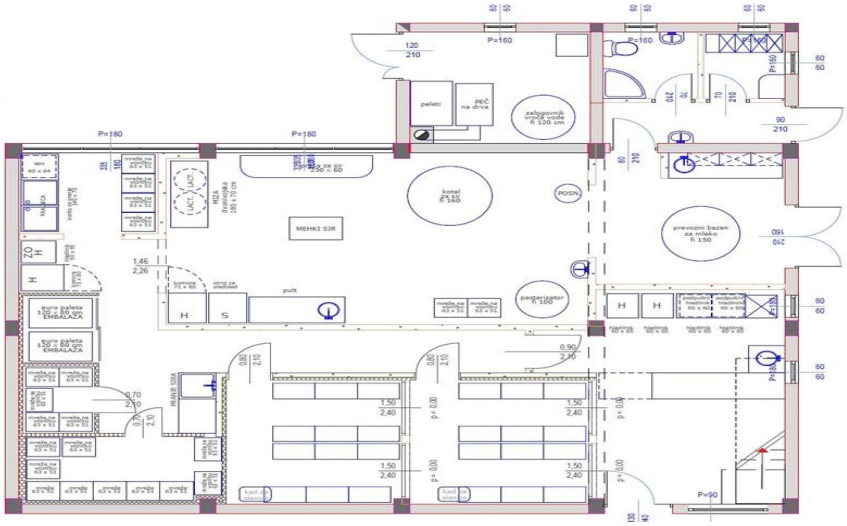
Name	Quantity
Equipment for the production of dairy, fermented dairy products and sour cream	
Tank for pasteurized milk	1 pc.
Tank for yogurt production	2 pcs.
Tank for kefir production	1 pc.
Tank for the production of ryazhenka	1 set.
Plate heat exchanger for cooling + pump	1 set.
Sour cream fermentation system 500 l	2 pcs.
Stainless tdolls and flaps system	1 set.
Electrical communications and control panel	1 set.
Equipment for the production of cottage cheese and curd paste	
Fermentation capacity of curd 1000 l	1 pc.
Product transfer pump	1 pc.
Curd material	1 set.
Mixer	1 pc.
Curd processing system	1 pc.
Stainless tdolls and flaps system	1 set.
Electrical communications and control panel	1 set.
Equipment for the production of semi-hard cheese	
Container for semi-hard cheese	1 pc.
Cheese production table	1 set.
Tools for cheese processing	1 set.
Electrical communications and control panel	1 set.
Hard cheese production equipment	
Cheese sourdough tank, 1000 l	1 pc.
Cheese molds	50 pcs.
Primary stage cheese processing press system	1 set.
Secondary Stage Cheese Processing Press System	1 set.
Tools for cheese processing	1 pc.

Name	Quantity
Salt Bath	1 pc.
Packaging table	1 pc.
Packing Shop	
Semi-automatic machine for filling milk into PET bottles	2 pcs.
Yoghurt, sour cream and cream packaging machine into cups CA-7	1 pc.
Vacuum machine	1 pc.

Sources: Global Innovation Trade data

The layout of the premises for the equipment of the milk processing complex is shown below.

Figure 6. Plan of the premises of the milk processing complex



Sources: Global Innovation Trade data

The total cost of machinery and equipment for the project **7,837.128 thousand dollars.**

2.4. Environmental issues of production

Keeping goats and processing of goat milk will be carried out in compliance with all the requirements of environmental safety of agricultural production.

Measures for the protection and rational use of water resources

In order to ensure economical and rational use of water resources, water supply and sewage systems will be installed at the enterprise. These include:

- disposal of domestic and industrial wastewater into the sewage network;
- Drainage of uncontaminated industrial wastewater into the plant's rainwater network sewers

Environmental protection

At all stages of construction of the facility are provided for measures to protect the environment from the impact of the facility, including:

- maximum preservation of the terrain and green areas enclosing the territory; new forest belts are planted, protecting the neighboring territory from the impact of agricultural production complex; the location of the complex was chosen taking into account the "wind rose";
- The buildings of the complex have no harmful emissions into the environment;
- The compost removal system adopted in the project due to high-quality waterproofing eliminates the penetration of harmful substances into the ground and groundwater. The design of the lagoons eliminates the penetration of harmful substances into the soil;
- The ventilation system adopted removes air polluted by goat products through a system of exhaust chimneys (shafts) evenly distributed along the entire length of the building. This eliminates a high concentration of harmful substances in one place;
- All elements of the complex and equipment are made of non-toxic, non-biodegradable materials and do not harm the goats or the service personnel;
- The personnel use special rooms in the sanitary pass and other buildings of the complex for their domestic needs;
- The personnel of the complex move along clearly defined routes, excluding the crossing of "clean" and "dirty" paths. A system of access to the premises by electronic key cards is used. A reusable system for disinfecting shoes, vehicle wheels, and small tools (disinfecting barriers) is used.

The complex under construction is not located in a protected zone of natural water accumulation, nor in a water management zone. Protective and natural forest plantations and nature reserves were not affected during the construction of the complex.

The landscaping carried out upon completion of the complex includes reclamation of the fertile layer of land with seeding of grass and planting of bushes and trees of local species. Planting a protective and filtering green zone is one of the measures to minimize the adverse impact on the environment.

In accordance with the technological process, the protection of nature and the environment from the introduction of infectious diseases, from contamination by sewage and hazardous industrial waste through the activities carried out in the buildings of the complex.

3. Analysis of the situation in the industry

3.1. PEST analysis of the industry

PEST-analysis is a tool designed to identify the political (Political), economic (Economic), social (Social) and technological (Technological) aspects of the external environment, which can affect the development of the market and the position of companies in it.

PEST analysis of goat milk products market in Uzbekistan is shown below.

ECONOMIC FACTORS

Data on the dynamics of GDP is a macroeconomic indicator that reflects the market value of all final goods and services (i.e., intended for direct consumption) produced during the year in all sectors of the economy within the state for consumption, export and accumulation.

Figure 7. GDP growth of the RUz, 2018-2022

Source: Uzstat

In 2022, **the gross domestic product** of the Republic of Uzbekistan was **888.34 trillion soums** in current prices. In 2022, the average official exchange rate of the US dollar was 11,051.2 soums. Accordingly, **the volume of GDP calculated at this exchange rate amounted to 80 billion 384 million U.S. dollars**. **Uzbekistan's economy in 2022 grew by 5.7%.**

Food retail turnover

The real growth rate compared to the level of 2021 **was 5.7%**. The share of goods production in GDP increased to 484.7 trillion soums (+5.2%), services - to 343.3 trillion (+8.5%), net taxes on products - to 60.3 trillion (but there was a decrease of 0.8%.

Trade, accommodation and food services grew by 9.3%, transportation, information and communication -by 14.7%. Comparatively low growth rates were observed in agriculture, forestry and fishing (3.6%).

Calculated in U.S. dollars at the average exchange rate, nominal GDP was **$80.38 billion**, up $10.8 billion from 2021.

GDP per capita grew by 3.5% in real terms, from 21.15 million **soums** to **24.91 million soums ($2254.9)**. In comparison, a growth of 5.3% was registered in 2021 and 0.1% in the pandemic year of 2020.

By 2026, Uzbekistan plans to increase its economy by 1.5 times and bring its GDP to at least $100 billion.

Number of enterprises and organizations belonging to the main industries-consumers and producers

In total, there are about 578 thousand enterprises and organizations in the country, excluding farms and peasant farms. These statistics were published by the State Statistical Committee of Uzbekistan. The number of enterprises by sectors is in the infographic.

Source: Uzstat

Dairy production

According to preliminary data, farms of all categories produced in January-December 2022 11,629.4 thousand tons of milk, this figure was 103.2% compared to the corresponding period in 2021.

The analysis by categories of farms shows that 93.4% of the total volume of milk produced is accounted for by farms and household farms, 5.4% - by farms and 1.2% - by organizations engaged in agricultural activities.

Samarkand oblast (11.9%) accounts for the largest share in the total volume of milk. At the same time, high milk production rates are recorded in Kashkadarya (11.0%) and Ferghana (9.5%) provinces.

In 7 months of 2022, Uzbekistan imported 22.3 thousand tons of dairy products from 30 foreign countries.

The volume of imports of dairy products increased by 5.4 thousand tons compared to the same period last year.

Countries to which Uzbekistan imported the most dairy products in 7 months:

- Russia - 8.4 thousand tons
- Belarus - 3.8 thousand tons
- Iran - 3.8 thousand tons
- Kazakhstan - 3 thousand tons
- Lithuania - 627 tons
- France - 591 tons
- Turkey - 437 tons
- Finland - 247 tons

Goat milk in the Kashkadarya region

The number of goats is also growing in Uzbekistan. In addition to useful milk, it is also an opportunity for meat production. As of January 1, 2022, the number of goats in all categories of farms amounted to 3,643,200 heads.
The highest specific weight of the total number of goats among the regions belongs to **Kashkadarya region (31.3%)**, on the contrary, the lowest specific weight belongs to Andijan region (0.4%).

Market saturation of goat milk products

The coefficient of potential market saturation of goat milk products, calculated in section 3.1, is 22%. This suggests that the studied segment of the AIC is not fully saturated and has the potential for growth.

Development of goat milk producing companies

At the moment, the industry is rapidly and comprehensively saturated with producer companies. New players are appearing, many existing companies have set their sights on reaching the forefront in terms of goat numbers or production figures.

It should be noted that most of the producers are full-cycle enterprises, whose activities include not only the processing of raw materials and production of goods, but also the maintenance of farms, production of nutritional mixes, creating a network of branded outlets, etc.

Despite the high potential of the goat milk products market, once the complexes under construction reach full production capacity, the level of competition in this segment of the agro-industrial complex will increase significantly.

SOCIO-DEMOGRAPHIC FACTORS

Population

The permanent population of Uzbekistan as of January 1, 2023 was 36.024 million people, according to the demographic report of the Statistics Agency under the President. Thus, the country's population increased by 753 thousand people, or 2.1%, during the year.

Source: Uzstat

Number of children under the age of 10

"As of January 1, the total number of children between the ages of 0 and 14 was 10,518,483."

Of these, there were 4,954,910 boys and 4,730,654 girls.

In addition, the total number of young people aged 14 to 30 years has reached 9,685,564, the agency specifies.

Source: Uzstat

Number of people with gastrointestinal diseases

Another target group of goat milk consumers is people with GI disease. According to Uzstat, the number of people with digestive diseases decreased by 3-5% in 2021 and 2022.

Real income of the population

The real growth rate of aggregate income of the population of Uzbekistan in 2022 was 9.7%, according to the State Statistics Committee. The aggregate income of the population amounted to **634.8 trillion soums** and per capita - **17.8 million soums.** In nominal terms, total income grew by 22.3%. In turn, the total income per capita rose by 19.8% in nominal and 7.5% in real terms. Aggregate income is gross income **before deducting mandatory and other deductions**. It includes cash income and fixed income. It is an important indicator of the well-being of the population. In some regions, **the nominal** income exceeded the national average: Tashkent (37.5 million soums), Navoi (27.4 million soums), Bukhara (21.3 million soums), Khorezm (19.6 million soums) and Tashkent (18.1 million soums). Karakalpakstan, Ferghana and Namangan regions recorded **the lowest** average per capita nominal aggregate income of the population - about 13.5 million soums.

Uzbeks received **the main income** from labor activity, although their share decreased from **65% to 61.6%**. Transfers accounted for almost 30%, property income 2.3%, and the remaining 6.3%
- income from the production of services for own consumption.

Compared to 2021, the share of transfers in the structure of the total income of the population increased **by 10%** - from **26.2% to 29.8%**. Almost two-thirds of income from transfers came from cross-border transfers, and only 35.4% from social transfers.

Transfers are divided into social and other current transfers. Social transfers include pensions, benefits, and scholarships. Others include remittances and others.

The income of Khorezm Province residents **is most dependent** on remittances - 31.1%. Next come Samarkand (28.8%), Surkhandarya (25.8%) and Andijan (24.7%) regions. The least dependent provinces are Navoi, Tashkent and Jizzak - less than 10%.

Consumer demand

Consumer demand is formed in the population based on tastes, traditions, dietary norms, income level, and susceptibility to advertising communications. It should be stated that goat's milk products are not favored in forming the diet of Uzbek citizens. The reasons are their high cost, historical preferences, and lack of awareness of the qualitative features and benefits of these products. In general, there has been a significant decline in the consumption of milk in Uzbekistan over the past few decades and its gradual replacement by other types of drinks: juices, sweet soft drinks, beer, etc.

Nevertheless, the population's interest in goat milk and products based on it increases every year. This is due to the high biological value of goat milk and the low specific weight of certain proteins it contains, which gives goat milk less allergenic properties in comparison with cow's milk. This quality is especially important for infants, pregnant and lactating women. In addition to them, the target audience of this dairy product includes people with gastrointestinal diseases, ecological nutritionists and other categories of citizens seeking a healthy lifestyle.

At present, the Uzbek market of goat milk products is in the stage of formation, while it retains a high potential to increase the volume of consumer demand.

Shortage of qualified personnel

Currently, there is a shortage of qualified workers and management personnel in the industry. There is a need to introduce educational programs and conditions for the training of specialists, the creation of production and training combines.

TECHNOLOGICAL FACTORS

The main problems hindering the growth of domestic production of goat milk products are related to the technical backwardness of farms, the lack of quality gene pool and feed mixes.

Technical equipment of livestock farms and processing complexes, automation and production technology are at a low level. All this negatively affects the qualitative and quantitative indicators of the obtained raw materials.

At the same time, market leaders are striving to improve the quality of their products. They take a comprehensive approach in the development of domestic farms and processing production complexes, take measures to improve the quality of the gene pool and increase the number of goats.

High level of technology import dependence

At the moment, domestic indicators of raw material processing, mechanization and automation of labor are significantly inferior to their European counterparts. To obtain high-quality competitive products (in particular, in the production of different types of cheese) requires specialized foreign equipment, appropriate technology, as well as expert advice.

The high level of technology dependence on imports, among other things, affects the cost of the end product.

POLITICAL AND LEGAL FACTORS

State support for the industry

Currently, the state is taking a set of measures aimed at the establishment, development and stabilization of the market:

- application of of customs and tariff and non-tariff methods regulation of foreign trade activity;
- various forms of financial support;
- subsidizing and preferential lending to domestic producers;
- other types of state support.

Based on the results of the PEST-analysis, a mathematical model of a comprehensive assessment of the level of investment attractiveness of the goat milk products market was compiled. Each factor of the external environment was assigned an expert assessment of the strength of influence (from 1 to 5, where 1 - very weak influence, 5 - very strong influence), as well as a ranking of all the factors listed by degree of importance (1 - the most important factor, 22 - the least important factor).

Table 12. PEST-analysis of factors affecting the goat milk products market in Uzbekistan

Factor	Vector of influence	Estimation of the power of influence, points	The importance of the factor	Importance coefficient	Weighted value factor, points
ECONOMIC					
Negative GDP dynamics	-1	4,0	22	0,01	**-0,05**
Positive dynamics of retail turnover food trade	1	4,0	13	0,02	**0,08**
Slightly decreasing share of food products in the turnover structure retailers	-1	3,0	12	0,02	**-0,07**
Growing dynamics of catering turnover	1	2,0	21	0,01	**0,03**
Decrease in the number of enterprises and organizations, related to the main consumer industries	-1	3,0	20	0,01	**-0,04**
Increase in the index of dairy production	1	4,0	16	0,02	**0,07**
Growth in the production of Uzbek products from goat milk	1	5,0	2	0,14	**0,68**
High capacity and low market saturation	1	5,0	1	0,27	**1,35**
Development of goat production companies milk, which will lead to increased competition	-1	3,5	3	0,09	**-0,32**
SOCIO-DEMOGRAPHIC					
Population growth	1	5,0	4	0,07	**0,34**
Slight decrease in the number of children under the age of 10	-1	4,0	6	0,05	**-0,18**
Reducing the number of people with diseases gastrointestinal tract	-1	4,0	7	0,04	**-0,15**
Decrease in real incomes of the population	-1	5,0	5	0,05	**-0,27**
Increased consumer demand	1	5,0	17	0,02	**0,08**
Shortage of qualified personnel	-1	3,0	15	0,02	**-0,05**
TECHNOLOGICAL					

Factor	Vector of influence	Estimation of the power of influence, points	The importance of the factor	Importance coefficient	Weighted value factor, points
Technical backwardness of farms, lack of quality gene pool and feed mixes	-1	3,0	14	0,02	**-0,06**
High level of technology import dependence	-1	4,0	11	0,02	**-0,10**
POLITICAL					
Reducing the share of imports	1	5,0	9	0,03	**0,15**
Export potential	1	3,5	19	0,01	**0,05**
Support from the state	1	4,0	10	0,03	**0,11**
Total					**1,43**

Source: Global Innovation Trade analysis and assessment

The final grade scale is as follows:

- from -5 to -1.67 - unfavorable investment climate;
- -1.66 to +1.66 - neutral investment climate;
- +1.67 to +5 - favorable investment climate.

The final score for the goat milk products market is 1.43, indicating a favorable investment climate.

It should also be noted that the top 3 most favorable environmental factors for the market of goat milk products, according to the above mathematical model, include:

1. High capacity and low market saturation.
2. Increased production of Uzbek goat milk products.
3. Population growth.

Factors that have the greatest negative impact on the market in question:

1. The rapid development of goat milk producing companies, which will lead to increased competition.
2. Decrease in real incomes of the population
3. A slight decrease in the number of children under the age of 10, who are a significant segment of consumers of goat milk products.

3.2. Porter's 5 Forces Analysis

Porter's Five Forces Analysis is a basic model for evaluating a company's current or new industry prospects. The results of this analysis allow a company to highlight its main competitive advantages and achieve a more favorable market position.

Table 13. Porter's 5 forces analysis

Parameter	Value	Description	Areas of work
Threat from substitute products	High	Availability of substitute products both among similar products of other manufacturers and among analogous products made from cow's milk	▪ Communicating the benefits of goat milk products to the end consumer through a PR campaign both at points of sale and in the online space. ▪ Development new formulations, different from the competition
Threats of intra-industry competition	High	The range of products offered by most manufacturers is not unique and has similar characteristics. In addition, in the context of decreasing money income of the population, the consumer will pay more attention to the price of products, which will lead to increased price competition between market players	▪ Forming a powerful brand that will create uniqueness in the minds of consumers. ▪ Regular monitoring of the activity of existing competitors. ▪ Offer a more attractive price compared to competitors while maintaining product quality. ▪ Regular participation in promotions retail chains
Threat from new players	High	The market for goat milk products is promising and may become highly competitive in the near future: new players are appearing in the industry, while existing enterprises continue to increase production capacity	▪ Tracking the appearance of new players. ▪ Regular update assortment, introduction of new products and new recipes. ▪ Regular participation в Promotional activities of retail chains. ▪ Active development и promotion

Parameter	Value	Description	Areas of work
			brand among end users
Threat of losing current customers	Medium	Major food chains have their own requirements for cooperation	▪ Maintaining a high level of service when working with existing retail chains. ▪ Conclusion of contracts for the supply of products under the CTM (trademark of the food network)
The threat of supplier instability	Low	The main suppliers for a goat farm can be: ▪ suppliers feed and veterinary drugs for animals; ▪ suppliers of packaging for finished products; ▪ logistics companies that carry out delivering products to receiving points retail chains	▪ Concluding contracts with reliable and stable companies. ▪ Expanding the list of suppliers in order to diversify and reduce dependence on a single company

Source: Global Innovation Trade analysis

The implementation of all the proposed recommendations will allow the company to take a stable position in the market of goat milk products.

4. Analysis of product markets

4.1.1. Development of a unique selling proposition (USP) for each target consumption segment

The unique selling proposition is a short formulated message about the service, product or the whole company, which distinguishes them from a number of similar ones and serves as an incentive for the client to make a purchase. Unlike positioning, which is aimed at direct customers (wholesalers, retailers, dealers), the USP is designed for the end consumer products.

Global Innovation Trade analysts conducted an analysis of the UTP of products, which are used by the largest players in the market of goat milk products. The results are presented in the table below.

Table 14. Examples of UTP of the largest market players

Manufacturer	Brand/Trade Brand	Category products	UTP
Lukoz Agro Holding	Kozilakt	Milk	With love and care for the whole family
	Sernursky cheese factory	Kefir	Keeping the tradition alive
	Kozilakt	Yogurt	With love and care
	Sernursky cheese factory	Sour cream	Maintaining the tradition of quality
	Sernursky cheese factory	Cheese	World Cheese Collection
	Lukoz	Cheese	100% natural product
OJSC "Milkom	The village is green	Milk	100% pure product. Quality assurance from the manufacturer
	The village of Green	Cheese	A lovingly prepared natural product for connoisseurs rustic goat's milk
Volzhanka Cheese Factory LLC	Cheese Factory "Volzhanka"	Cheese	Fresh goat cheese
	Cheese Factory "Volzhanka"	Cacciotta cheese	In the best Italian tradition
"Lactalis Vostok.	President	Soft cheese	Snack a la francaise

Manufacturer	Brand/Trade Brand	Category products	CBP
Krasnaya Gorka LLC (Goats and Company")	Ko&Co.	Cheese	Handmade farmer's cheeses
"Neo Product (G-balance)	G-balance	Milk	Farmer's product. From milking to packaging 2 h 40 min

Source: companies' official websites, Global Innovation Trade analysis

Most manufacturers note common characteristics inherent in the entire category of goat's milk products, such as:

- naturalness;
- quality;
- farmer's.

These characteristics represent an appeal to the key demands and values of end customers. As a consequence, the new brand of goat milk products is also recommended to use these characteristics in its UTP.

Table 15. Recommended UTP in the context of product groups

Product Group	Recommended CBP
Milk	"Real. Rustic."
Kefir	"Just like when we were kids."
Yogurt	"A healthy treat for the whole family."
Sour cream	"In the best farming tradition."
Cottage cheese	"Tastes and Benefits for the Whole Family."
Cheese	"Real France/Italy at Your Home", "European Quality Cheeses at Your Home"

Source: Global Innovation Trade development

In addition to the quality characteristics of products, the USP can be built separately for each target customer segment.

The target consumers for the new player on the market of goat milk products can be divided into two segments:

1. B2B clients: departments procurementretailers chains, distributors, individual retail food outlets.
2. End Buyers:
   - Children with food allergies to cow's milk proteins;
   - people of different ages with gastrointestinal diseases;
   - adult followers of a healthy lifestyle.

For each segment of the target audience, it is recommended to develop a separate USP, which will correlate with the main values and requirements of these consumers to the producer and the products made from goat milk.

Table 16. Recommendations for the formation of the USP in the context of the segments of the target audience

Target audience	Who makes the buying decision	Values	Recommended CBP
B2B segment			
Trading networks	Purchasing Manager	▪ Stability of supply. ▪ High level of service. ▪ The products correspond to the positioning of the retail chain. ▪ A unique product, unparalleled in other retail chains. ▪ High level of sales margin. ▪ High level of demand for products	"A reliable partner with strong marketing support, high level of service and European quality products only for your retail chain."
Distributors	Manager	▪ Stability of supply. ▪ High level of service. ▪ A strong brand.	"A Reliable Partner for Your Business"

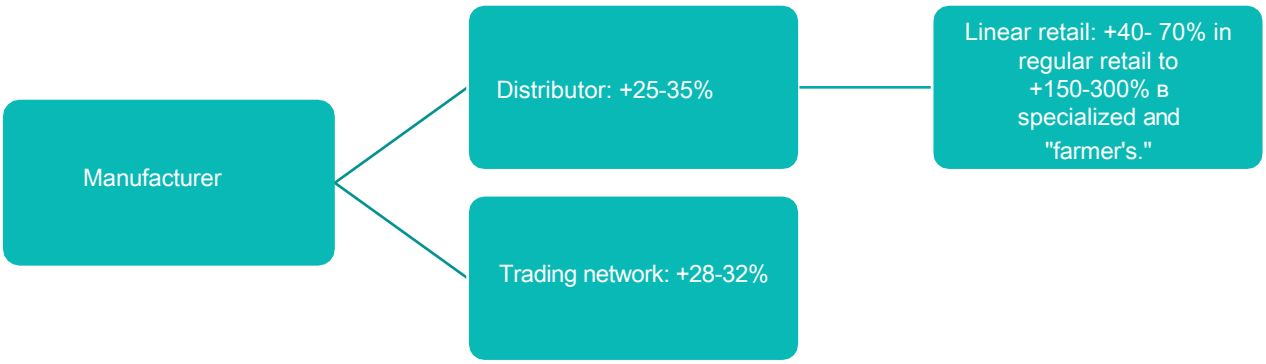
Target audience	Who makes the buying decision	Values	Recommended CBP
		▪ High level of sales margin	
End Buyers			
Children with food allergies to cow's milk proteins	Parents	▪ Safety. ▪ Naturalness. ▪ Benefits. ▪ Hypoallergenic	"Hypoallergenic natural milk product for the smallest"
People of various ages with diseases of the gastrointestinal tract	By yourself	▪ The benefits of health benefits. ▪ Security	"Safe dairy product for everyone."
Adult followers of a healthy lifestyle	By yourself	▪ The benefits of health benefits. ▪ Naturalness. ▪ Eco-friendliness	"Taste and Benefit from Farm to Buyer."

Source: Global Innovation Trade analysis and recommendations

4.1.2. Pricing strategy

The pricing mechanism for goat milk products is comparable to the price formation for conventional dairy products, which is as follows.

Figure 8. Scheme of markup formation for dairy products in different sales channels



Source: data of market experts

When planning the price positioning of products it is necessary to take into account the fact that against the background of falling incomes of the population a special role is played by price promotions, which are jointly carried out by manufacturers and retailers. The share of "promotional" products in the "mass-market" segment can account for up to 60-70% of total category sales. Accordingly, the manufacturer needs to calculate in advance what types of products it plans to use in promotions. Usually promotions in retail chains have the following parameters.

Table 17. Parameters of promotions conducted by retail networks

Parameter	Value
Duration	1 to 2 weeks
Size discount, provided by the manufacturer on the promotional assortment	From 15 to 20% of the current delivery price
Additional supplier payments t o the network	Up to several hundred thousand dollars to produce promotional materials (catalogs, price tags, etc.)

Source: data of market experts

When starting work with distributors, the following terms of cooperation should be taken into account:

- Providing a deferral of payment (usually up to 2 weeks, but if the distributor works with chains, the deferral must exceed the chain's deferral of payment to the distributor). If no deferral is granted, the distributor can ask for a 10-15% discount.
- Compensation of the distributor's costs of working with retail chains (retro bonuses, fines incurred due to complaints about the manufacturer's products, marketing payments).

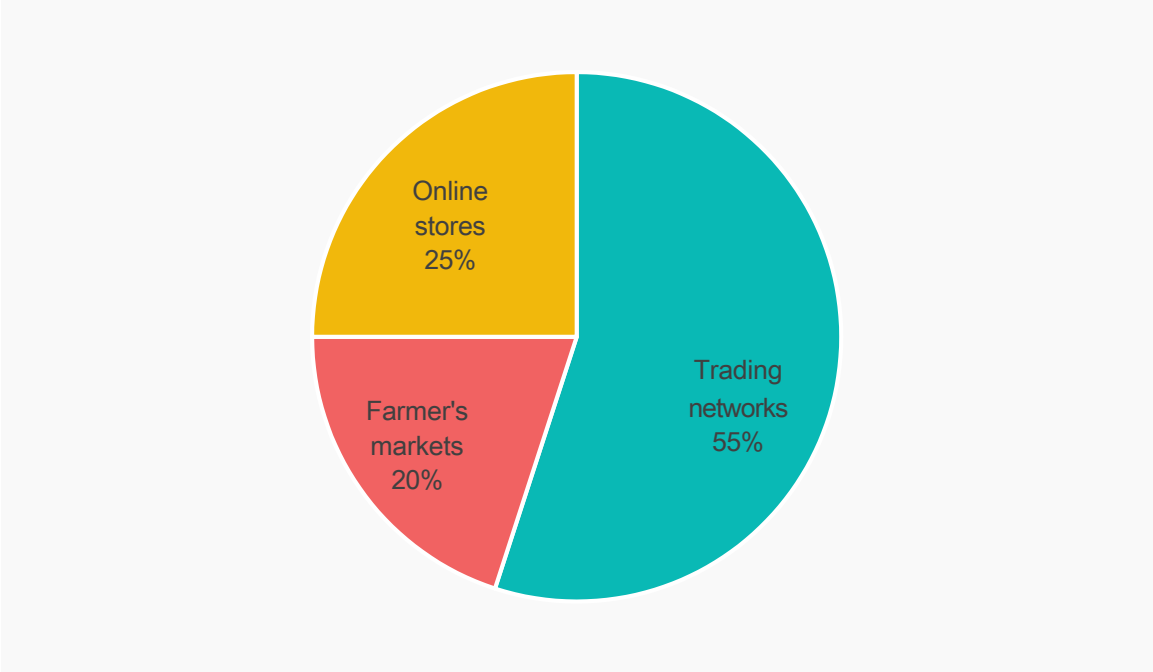
- Ability to accept returns of products.

4.1.3. Sales policy

4.1.3.1. Product sales channels (distributors, agents, retail, HoReCa)

Taking into account the trends in the development of the main sales channels of goat milk products described in section 1.2.1, the sales distribution structure of the new producer by sales channels can look as follows (see the figure below).

Figure 9. Recommended sales structure by sales channels, %



Source: Global Innovation Trade analysis

In view of the fact that the market for goat milk products is in its formation stage, an advantageous competitive strategy for promoting the new brand in the network sales channel is an intensive sales strategy, i.e. attracting the maximum possible number of outlets to the sales program.

In the process of planning the company's sales policy, it is necessary to focus on the parameter of numerical distribution - the value that characterizes the percentage of outlets in which the brand is represented. To achieve a sustainable impact on the market, the value of this parameter should be at least 35%.

4.1.4. Advertising promotion strategy

4.1.4.1. Channels and methods of promotion

By the time a new manufacturer enters the market, it should already have the following promotion tools ready:

- registered trademark (name and logo);

- the release of products in an appropriate package design;
- website;
- pages in the main social networks;
- electronic catalog;
- printed catalog;
- corporate style of documents (plus necessarily the standard design of the price list and the commercial offer).

At the time of entering the market, the company must develop and unify the following types of information for customers:

- a list of the product range;
- which customers and consumers the assortment is aimed at;
- the competitive advantages of the products;
- elaborate price positioning: premium segment, mass-market or different product lines for different price niches;
- how the manufacturer's level of service differs from that of competitors.

For each sales channel it is necessary to form a target assortment, which must necessarily be present in it. This is necessary in order to achieve product recognition with customers more quickly.

4.1.4.2. PR. Participation in exhibitions, sponsorship, etc.

PR is a management function that promotes or maintains a mutually beneficial relationship between an organization and the public, on which its success or failure depends. Public refers to any group of people (as well as individuals), in one way or another, associated with the life of the organization.

It is customary to distinguish two groups of the public: external and internal.

The external community is groups of people not directly related to the organization. For the Customer's company, the external community consists of the following groups:

- media workers;
- Suppliers of materials/raw materials/services (e.g., a transportation company);
- clients;
- regional dealers;
- end users.

The internal public are groups of people who are part of the company, namely the administrative and production staff, as well as the marketing and sales staff.

In this regard, it is recommended that the customer hire a specialist who will be responsible for carrying out PR activities. The list of duties of the PR manager should include:

- Maintaining the official pages of the Company in social networks (interaction with end users);

- updating the news feed on the Company's official website;
- industry news monitoring;
- interaction with representatives of industry media, participation in industry conferences;
- Preparation and organization of the Company's participation in specialized exhibitions;
- Monitoring the quality of sales managers' work (interviewing clients about the level of service, positive and negative experiences of clients' interaction with the Company).

In addition to the promotion of the Company on the market, i.e. work with external audience, the task of PR-manager is to create a favorable corporate culture. The criterion of its evaluation will be a favorable working atmosphere, high loyalty of employees to the employer, which is expressed in low staff turnover, as well as improving their working conditions. The formation of corporate culture does not require large financial outlays, but has a great impact on the efficiency of staff performance. Examples of tools used by PR-managers to improve the internal atmosphere in the Company can be:

- An information board, on which a list of birthday boys and girls is posted at the beginning of each month;
- corporate nature trips;
- payment for meals;
- bonuses to employees in honor of important life events (wedding, birth of a child);
- seniority bonuses;
- advanced training of employees at the Company's expense;
- corporate events in honor of official state holidays, company birthdays, etc.

4.1.4.3. Policies of rebounding from competitors

By detuning from competitors means various activities in the field of marketing, advertising and PR, aimed at ensuring that the firm, its products and / or services, employees, ideas in the perception of customers look the right way against the background of competing proposals.

Thus, in the segment of goat's milk products, which itself is a niche segment of the dairy market, the following opportunities for tuning out from competitors can be identified:

- Availability of products certified for children's nutrition;
- availability of national sour-milk drinks in the assortment.

Availability of a product line certified for baby food

One of the key consumer segments of goat milk products is children with food allergies to cow's milk proteins. Therefore, a new producer is recommended to have a specialized trademark of products certified for baby food in its product portfolio.

According to the requirements, all food products must undergo a mandatory declaration of quality. Specialized baby food, which includes food products intended for children under 3 years old, in addition to the declaration of conformity must undergo the state registration procedure. And it is possible to apply for a certificate of state registration (SGR) only after receiving a declaration of conformity.

To obtain the SGR, it is necessary to prepare and submit the necessary package of documents to the relevant authority:

- protocols of earlier expert examinations (if any);
- information about the product itself and its purpose;
- copies of the technical documentation on the basis of which the product was produced;
- sample label and instructions for use;
- Copies of the founding documents of the manufacturer.

Samples of baby food are also attached to the documents. Only the manufacturer himself or his authorized representative can obtain a certificate of state registration. In addition, he must do so by the time the production line is launched, since the testing procedure will also include inspection control at the production facility.

After obtaining the SGR the manufacturer can apply to the certification center for a declaration of conformity for baby food. The declaration may be issued for a batch of products with a period of validity (declaration) of up to five years.

Availability of national sour-milk drinks in the assortment

The availability of national sour-milk drinks - tan, ayran, matsoni - in the range of new producer can become a significant competitive advantage and a method of building a new brand in the market of goat milk products.

With the growth of competition between retailers, dairy suppliers find themselves in a situation where chains are trying to "build up" their positioning with their products. In other words, large retail chains try to order a unique assortment from producers, which would differ from the assortment supplied to other chains.

Thus, the more opportunities to fill the assortment the manufacturer has, the more networks he can work with a non-overlapping assortment.

4.1.4.4. Media plan

A media plan is a plan for placing the company's communications messages to the target audience. This document contains answers to the following questions: where and how often they should be placed, who is responsible for implementing the strategy, how much to spend on it.

Table 18. Media plan

Media type	Placement format	Responsible person	Frequency
Internet	Maintaining the website and official brand pages in social networks	SMM Manager	Monthly
Internet	SEO promotion of the site in search engines	Internet Promotion Specialist	Monthly
Internet	Feature articles and commentary for industry media	PR Manager	Monthly

Media type	Placement format	Responsible person	Frequency
Internet	Targeted advertising in "Yandex, Google and social networks	Targetologist/contextual advertising specialist	Monthly
Internet	Organization of mailing to existing customers with the main news about the company, current promotions, new products, etc.	Client support specialist (direct marketer)	Monthly
Print ads	Development and printing of product labels, promotional materials	Designer	Once a quarter or at the discretion of the manager
Print ads	Development of POS materials	Designer	Once a quarter or at the discretion of the manager
Other	Participation in industry exhibitions	PR Specialist	1-2 times a year

4.1.5. Financial marketing plan (marketing budget)

A marketing financial plan (budget) is a marketing plan expressed in monetary units. The budget reflects the projected costs of advertising and marketing promotion of the company, brand and products in the market.

The marketing budget for a new company is usually calculated based on planned revenue and the stage of market entry. For example, when a company enters a market where its brand and products are not yet known to consumers, marketing costs can be as much as 30 percent of revenue. As the company gains a foothold in the market and the number of loyal customers increases, marketing costs decrease and can amount to 10-15%.

Table 19. Marketing budget forecast for the manufacturer

Indicator	2023	2024	2025	2026	2027	2028
Stage	*Market introduction*		*Extension customer base andmarket retention*		*Maintaining sales and market share*	
Revenue of milk processing complex, mln. dollars, excluding VAT	15,02	21,83	23,60	25,46	26,38	27,29
Share of marketing costs	0,00	0,00	0,00	0,00	0,00	0,00
Marketing budget, million dollars.	4,51	5,46	4,72	5,09	5,28	4,09

Calculation and analysis of Global Inno *Trade*

Thus, the estimated marketing budget for a manufacturer ranges from $4.5 million during the market introduction phase to $4 million by 2031.

4.1.6. Evaluating the economic efficiency of the chosen strategy

Return on Marketing Investment (ROMI) is a measure of return on investment in a company's marketing activities. ROMI operates with such metrics as return on investment, profit, and return on investment. As in the case with ROI, ROMI helps to quickly assess the effectiveness of activities carried out without accounting for various errors - accounting costs, seasonality of demand and others. This is the main universality of the formula.

The basic algorithm for calculating ROI is based on the following data:

ROMI = (COMPANY PROFIT - EXPENSES) / INVESTMENT * 100%

The ROMI scores are decoded as follows:

- Less than 100% - the project, advertising, and marketing activities do not pay off. The reasons may vary, starting with the company's entry into the market, when the company incurs objectively high marketing costs to promote its products, and up to inaccurate forecasting of the prospects of the niche.
- Equals 100% - the breakeven point of marketing activities, when the investment is returned without income.
- More than 100% - every dollar invested is returned and generates income from above. The higher the value, the more successful the campaign is considered.

The ROMI calculation for the manufacturer's planned marketing budget in the previous paragraph is shown in the table below.

Table 20. Calculation of Marketing Budget Effectiveness (Return On Marketing Investment, ROMI)

Indicator	2026	2027	2028	2029	2030	2031
Stage	*Market introduction*		*Extension customer base andmarket retention*		*Maintaining sales and market share*	
EBITDA, mln USD	6,23	9,72	11,18	11,99	12,41	12,83
Marketing costs, million dollars	4,51	5,46	4,72	5,09	5,28	4,09
ROMI (Return On Marketing Investment), %	**38%**	**78%**	**137%**	**136%**	**135%**	**213%**

Global Innovation Trade Calculation and Analysis

The table shows that at the stage of the company's entry into the market, ROMI is less than 100%, which indicates a high share of marketing expenses in the structure of the company's expenses and can be explained by the need for intensive promotion of the new brand. The share of marketing expenses decreases and ROMI increases with the market penetration and reaches the value >200% by 2030-2031.

6. Organizational Plan

5.1. Organizational and legal form of project implementation

The Initiator, Operator and Borrower of the project is Global Innovation Trade.

The amount of the authorized capital is $10,000. The founders and their shares in the authorized capital are shown in the table below.

Table 21. Shares of founders in the authorized capital of Global Innovation Trade

Name	Share	Amount, thousand dollars.
Potential founder	49%	4,9
Potential founder	31%	3,1
Potential founder	20%	2,0

Source: Global Innovation Trade data

5.2. Major partners

DeLaval will supply and install the necessary technological equipment for goat barns.

Information about suppliers of flocks, raw materials and supplies is presented in Appendix 9.2.

5.3. Work schedule for the project

During the period to date, work has been done on preliminary research, the formation of the project concept, and the establishment of business relationships.

In October - December 2023, the design work will be completed, as well as part of the construction and installation work.

After receiving an investment loan in January 2024, it is planned to continue construction and installation works. Starting in February 2024, some of the machinery and equipment for the project will be purchased.

From November 1, 2024, the project provides for the formation of the herd (first phase). The investment phase of the project will be completed in August 2025, and from January 2026 it is planned to reach full production capacity.

5.4. Legal issues of project implementation

Copies of the permits obtained for the project, as well as design and estimate documentation are shown in Appendix 9.3.

6. Financial plan

6.1. Conditions and assumptions adopted for the calculation

In the economic evaluation of the project was adopted 8-year planning horizon. The calculation

was made taking into account inflation.

Calculation of financial and economic evaluation of the project was made by using a system of tables in Excel, developed by the performer.

Economic efficiency of the project as a whole is determined on the basis of the "Methodological Recommendations for Evaluating the Effectiveness of Investment Projects.

Product Assumptions

To calculate this project, the indicator of the average monthly production volume is used, taking into account the plans of the Project Initiator, animal productivity and equipment productivity.

Assumptions about investment costs

Investment costs are divided into the following categories:

1. Investments for the purchase and construction of production buildings, facilities.
1. Investments for the purchase of production equipment.
2. Investment in the purchase of animals.
3. Other investments.
4. Running costs.

Assumptions about the initial working capital requirements

In order to calculate the initial working capital requirements, a list of resources needed to carry out all current activities of the project was analyzed.

Assumption about the discount rate

The project adopted a discount rate of 14% per year.

The risk-free project discount rate (d) is determined in fractions of one as the ratio of the refinancing rate (r) set by the Central Bank to the inflation rate (i) announced by the Government for the current year:

$$1 + d = (1 + r/100) / (1 + i/100)$$

Table 22. Discount rate without risk of the project (d)

The risk adjustment is determined based on the typical and specific risks of the project.

Table 23. Discount rate, taking into account project risks (D)

Constituents	%
Discount rate without risk of the project	0,0025%
Typical project risk for the production and marketing of a new product	14,00%
Total discount rate	**14,00%**

Source: Global Innovation Trade calculations

Thus, the value of the discount rate in accordance with the expert calculation was 14% per annum.

Assumptions about revenues, financial results and cash flows (DDS)

All of the above indicators were used to build revenue plans, profit and loss projections and cash flow.

6.2. Input data

6.2.1. Tax environment

The amounts of tax deductions by year of the project are shown in the table below.

Table 24. Amounts of tax deductions for the project

Type of tax/Year	2024	2025	2026	2027	2028	2029	2030	2031
VAT to budget	0,0	0,0	1752,6	2684,0	2994,4	3321,5	3438,1	3555,3
Social contributions	16,3	49,6	86,3	105,6	110,9	116,4	122,0	127,7
Property tax	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Land tax	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Income tax	0,0	0,0	926,4	1875,7	2294,0	2585,7	2756,9	2928,5
TOTAL taxes for the customer's company	16,3	49,6	2765,3	4665,4	5399,3	6023,5	6316,9	6611,6
PIT	6,6	20,1	34,9	42,8	44,9	47,1	49,4	51,7
TOTAL tax flow from the project including personal income tax	22,9	69,7	2800,2	4708,1	5444,3	6070,7	6366,3	6663,3

Source: Global Innovation Trade calculations

6.2.2. Nomenclature and prices of the project products

The table below shows the range of products planned for production and their prices by year of the project, taking into account inflation.

Table 25. Nomenclature of products produced under the project and their prices, taking into account inflation (including VAT), 2023-2028.

Indicators	Unit.	2026	2027	2028	2029	2030	2031
Goat/goats for sale	($/head)	128,3	133,3	138,4	143,6	148,8	154,1
Culled goats for sale	($/head)	128,3	133,3	138,4	143,6	148,8	154,1
Culled goats/goats for sale	($/head)	89,8	93,3	96,9	100,5	104,2	107,9
Breeding out of the herd	($/head)	89,8	93,3	96,9	100,5	104,2	107,9
Goat milk	($/litre)	0,9	0,9	0,9	1,0	1,0	1,1
Milk 3.2% 0,9 r	($/pc).	1,2	1,2	1,3	1,3	1,4	1,4
Milk 3.2% 0,5 r	($/pc).	0,7	0,7	0,8	0,8	0,8	0,9
Milk 1.5% 0,9 r	($/pc).	1,0	1,1	1,1	1,2	1,2	1,2
Milk 1.5% 0,5 r	($/pc).	0,6	0,6	0,7	0,7	0,7	0,7
Kefir 2.5% 0.9 g	($/pc).	1,2	1,2	1,2	1,3	1,3	1,4
Kefir 2.5% 0.5 g	($/pc).	0,7	0,7	0,7	0,8	0,8	0,8
Yogurt 2.5% 0.1 g	($/pc).	0,2	0,3	0,3	0,3	0,3	0,3
Yogurt 1.5% 0,45 r	($/pc).	0,8	0,8	0,8	0,8	0,9	0,9
Yogurt 1.5% 0,25 r	($/pc).	0,5	0,5	0,5	0,5	0,5	0,6
Sour cream 20% 0,35 r	($/pc).	1,2	1,3	1,3	1,4	1,4	1,5
Sour cream 20% 0,2g	($/pc).	0,7	0,7	0,8	0,8	0,8	0,9
Cheese curd 1.5% 0,25 r	($/pc).	1,5	1,5	1,6	1,6	1,7	1,7

Indicators	Unit.	2026	2027	2028	2029	2030	2031
Cottage cheese 10% 0.25 g	($/pc).	2,1	2,2	2,2	2,3	2,4	2,5
Soft cheese (Camembert)	($/kg)	17,4	18,1	18,8	19,5	20,2	20,9
Semi-soft cheese	($/kg)	10,0	10,3	10,7	11,1	11,5	11,9
Semi-hard cheese (Gouda, Edam)	($/kg)	19,9	20,7	21,5	22,3	23,0	23,8
Hard cheese (Emmental type)	($/kg)	19,9	20,7	21,5	22,3	23,0	23,8
Soft cheese (Ricotta)	($/kg)	10,0	10,3	10,7	11,1	11,5	11,9

Source: Global Innovation Trade data

Seasonal price fluctuations were not taken into account in the calculation.

6.2.3. Sales Plan

The sales forecast by type of commodity products of the production enterprise is shown in the table below. Since finished products are planned for sale in consumer packaging, which has different weight, a detailed sales plan was made in the number of unit packs of products.

Table 26. Sales plan for 2026-2031.

Types of marketable products	Unit of measure	2026	2027	2028	2029	2030	2031	2032	2033
Goats / goats for sale	(heads)	46,87	62,34	62,34	62,34	62,34	62,34	46,87	62,34
Culled goats for sale	(heads)	27,68	54,38	54,38	54,38	54,38	54,38	27,68	54,38
Culled goats/goats for sale	(heads)	2,54	11,84	11,84	11,84	11,84	11,84	2,54	11,84
Breeding out of the herd	(heads)	-	-	-	-	-	-	-	-
Goat milk	(thousand liters)	42,83	56,68	56,68	56,68	56,68	56,68	42,83	56,68
Milk 3.2%, 0.9 g	(thousands pcs.)	1,16	1,62	1,72	1,80	1,80	1,80	1,16	1,62
Milk 3.2%, 0.5 g	(thousands pcs.)	2,58	3,61	3,82	4,01	4,01	4,01	2,58	3,61
Milk 1.5%, 0.9 g	(thousands pcs.)	1,27	1,78	1,87	1,97	1,97	1,97	1,27	1,78
Milk 1.5%, 0.5g	(thousands pcs.)	2,28	3,19	3,37	3,55	3,55	3,55	2,28	3,19
Kefir 2.5%, 0.9 g	(thousands pcs.)	0,37	0,53	0,55	0,58	0,58	0,58	0,37	0,53
Kefir 2.5%, 0.5 g	(thousands pcs.)	0,50	0,71	0,74	0,78	0,78	0,78	0,50	0,71
Yogurt 2.5%, 0.1 g	(thousands pcs.)	3,36	4,70	4,97	5,23	5,23	5,23	3,36	4,70
Yogurt 1.5%, 0.45 g	(thousands pcs.)	0,54	0,76	0,80	0,84	0,84	0,84	0,54	0,76
Yogurt 1.5%, 0.25 g	(thousands pcs.)	0,97	1,37	1,44	1,52	1,52	1,52	0,97	1,37
Sour cream 20%, 0.35 g	(thousands pcs.)	3,24	4,54	4,79	5,04	5,04	5,04	3,24	4,54
Sour cream 20%, 0.2 g	(thousands pcs.)	3,78	5,29	5,59	5,88	5,88	5,88	3,78	5,29

Types of marketable products	Unit of measure	2026	2027	2028	2029	2030	2031	2032	2033
Cottage cheese 1.5%, 0.25 g	(thousands pcs.)	2,90	4,07	4,30	4,52	4,52	4,52	2,90	4,07
Cottage cheese 10%, 0.25 g	(thousands pcs.)	0,52	0,72	0,76	0,79	0,79	0,79	0,52	0,72
Soft cheese (Camembert)	(thousands pcs.)	5,46	7,66	8,08	8,50	8,50	8,50	5,46	7,66
Semi-soft cheese (type	(thousands pcs.)	0,07	0,11	0,11	0,12	0,12	0,12	0,07	0,11
Semi-hard cheese (Gouda, Edam)	(thousands pcs.)	0,23	0,32	0,34	0,36	0,36	0,36	0,23	0,32
Hard cheese (Emmental type)	(thousands pcs.)	0,16	0,22	0,23	0,24	0,24	0,24	0,16	0,22
Soft cheese (Ricotta)	(thousands pcs.)	2,74	3,83	4,04	4,25	4,25	4,25	2,74	3,83

Source: Global Innovation Trade information

6.2.4. Nomenclature and prices of raw materials, supplies, etc.

The nomenclature and prices of raw materials in the production of the project products, taking into account inflation, are shown in the table below.

Table 27. Prices for raw materials, dollars per unit

Indicators	Units of measurement		2024	2025	2026	2027	2028	2029	2030	2031
Prices for raw materials for the production of CMP										
Reverse, 0.05%	($/kg)	with VAT 20%	-	0,50	0,50	0,53	0,55	0,56	0,59	0,50
Cream, 34%	($/kg)	with VAT 20%	-	3,25	3,25	3,40	3,53	3,66	3,80	3,25
eXact KEFIR-1 preapplication starter	($/oz)	with VAT 20%	-	13,09	13,09	13,62	14,16	14,72	15,29	13,09
ST-Body4	($/oz)	with VAT 20%	-	6,59	6,59	6,85	7,13	7,42	7,69	6,59
YoFlex - 812	($/oz)	with VAT 20%	-	5,93	5,93	6,17	6,41	6,66	6,92	5,93
Curd sourdough	($/kg)	with VAT 20%	-	342,86	342,85	356,59	370,94	385,50	400,25	342,86
Stabilizer Pectin	($/kg)	with VAT 20%	-	17,76	17,76	18,47	19,21	19,97	20,74	17,76
Fruit filler	($/kg)	with VAT 20%	-	3,14	3,14	3,28	3,41	3,54	3,67	3,14
Sugar	($/kg)	with VAT 20%	-	0,71	0,71	0,74	0,77	0,79	0,83	0,71
PET bottle, 0.9 л	($/pc)	with VAT 20%	-	0,07	0,07	0,07	0,07	0,07	0,08	0,07
PET bottle, 0.45 l	($/pc)	with VAT 20%	-	0,05	0,05	0,05	0,06	0,06	0,06	0,05
PET bottle, 0.25 l	($/pc)	with VAT 20%	-	0,05	0,05	0,05	0,06	0,06	0,06	0,05

Indicators	Units of measurement		2024	2025	2026	2027	2028	2029	2030	2031
Beaker 95 mm 350 gr.	($/pc)	with VAT 20%	-	0,04	0,05	0,05	0,05	0,05	0,05	0,04
Beaker 95 mm 200 gr.	($/pc)	with VAT 20%	-	0,04	0,04	0,04	0,04	0,05	0,05	0,04
Beaker 95 mm 100 gr.	($/pc)	with VAT 20%	-	0,03	0,04	0,04	0,04	0,04	0,04	0,03
Transparent lid on the glass	($/pc)	with VAT 20%	-	0,01	0,01	0,01	0,01	0,01	0,01	0,01
Aluminum lid on the cup	($/pc)	with VAT 20%	-	0,01	0,01	0,01	0,01	0,01	0,01	0,01
Packing tape 48mm	($/m)	with VAT 20%	-	0,01	0,01	0,01	0,01	0,01	0,01	0,01
Stretch film	($/m)	with VAT 20%	-	0,02	0,01	0,01	0,02	0,02	0,02	0,02
Box label	($/pc)	with VAT 20%	-	0,00	-	-	-	-	-	0,00
PVA-C glue (2.5kg)	($/pc)	with VAT 20%	-	4,38	4,38	4,56	4,74	4,92	5,11	4,38
Glue for corrugated cartons (20kg bag)	($/kg)	with VAT 20%	-	4,79	4,79	4,98	5,18	5,39	5,59	4,79
Corrugated tray 388*292*141 - universal	($/pc)	with VAT 20%	-	0,21	0,22	0,22	0,23	0,24	0,24	0,21
Corrugated box 397*263*186	($/pc)	with VAT 20%	-	0,50	0,50	0,53	0,55	0,56	0,59	0,50
Pallet 1200x800	($/pc)	with VAT 20%	-	3,25	3,25	3,40	3,53	3,66	3,80	3,25
Teploenergo resources	($/kg)	with VAT 20%	-	13,09	13,09	13,62	14,16	14,72	15,29	13,09

Indicators	Units of measurement		2024	2025	2026	2027	2028	2029	2030	2031
Salaries of direct production personnel	($/kg)	with VAT 20%	-	6,59	6,59	6,85	7,13	7,42	7,69	6,59
Auxiliary materials	($/kg)	with VAT 20%	-	5,93	5,93	6,17	6,41	6,66	6,92	5,93
Prices of raw materials for cheese production										
Mesophilic starter MM101	($/g)	with VAT 20%	-	1,54	1,54	1,61	1,67	1,73	1,80	1,86
Mesophilic starter MA11	($/g)	with VAT 20%	-	1,79	1,79	1,86	1,93	2,00	2,09	2,16
Thermophilic sourdough starter TA45	($/g)	with VAT 20%	-	1,42	1,42	1,48	1,54	1,60	1,66	1,72
Penicilliu m Candidum mold	($/g)	with VAT 20%	-	7,99	7,99	8,34	8,66	9,00	9,34	9,67
Geotrich um Candidum mold	($/g)	with VAT 20%	-	5,53	5,53	5,77	6,00	6,23	6,47	6,70
Propionic bacteria	($/g)	with VAT 20%	-	0,67	0,67	0,71	0,73	0,76	0,79	0,82
Lipase	($/g)	with VAT 20%	-	0,24	0,24	0,25	0,26	0,28	0,29	0,30
Calcium chloride 10%	($/ml)	with VAT 20%	-	0,01	0,01	0,01	0,01	0,01	0,01	0,01
Liquid rennet	($/ml)	with VAT 20%	-	0,12	0,12	0,13	0,13	0,14	0,14	0,14
Salt	($/kg)	with VAT 20%	-	0,06	0,06	0,07	0,07	0,07	0,07	0,08
Vinegar 9%	($/l)	with VAT 20%	-	0,23	0,23	0,24	0,25	0,26	0,28	0,29

Indicators	Units of measurement		2024	2025	2026	2027	2028	2029	2030	2031
Pickling brine 20%	($/l)	with VAT 20%	-	0,16	0,16	0,16	0,17	0,17	0,18	0,18
Cheesy Figures	($/pc)	with VAT 20%	-	0,43	0,43	0,44	0,47	0,48	0,50	0,52
Wax	($/kg)	with VAT 20%	-	7,38	7,38	7,69	8,00	8,30	8,62	8,93
Latex coating	($/kg)	with VAT 20%	-	7,99	7,99	8,34	8,66	9,00	9,34	9,67
Cheese bag	($/pc)	with VAT 20%	-	0,55	0,55	0,58	0,60	0,62	0,65	0,67
Paper wrapping	($/pc)	with VAT 20%	-	0,08	0,08	0,08	0,10	0,10	0,10	0,11
Label	($/pc)	with VAT 20%	-	0,06	0,06	0,06	0,07	0,07	0,07	0,07
The box	($/pc)	with VAT 20%	-	0,31	0,31	0,32	0,34	0,35	0,36	0,37
Corrugated box	($/pc)	with VAT 20%	-	0,50	0,50	0,53	0,55	0,56	0,59	0,61

Source: Global Innovation Trade data

6.2.5. Calculation of direct material costs per unit production

For herd management, feed requirements are calculated based on the annual herd turnover (Appendix 9.4), feeding rations and average daily feed consumption rates for each sex and age group of animals (Appendix 9.5).

The annual consumption of feed for the entire herd in kind is shown in the table below.

Table 28. Feed consumption, tons

Type of feed	2025	2026	2027	2028	2029	2030	2031	2032	2033
Vykoovshaya mix	1 323	8 046	9 479	9 505	9 479	9 479	9 479	9 505	9 479
NMS silo (cornage)	131	6 173	6 913	6 932	6 913	6 913	6 913	6 932	6 913
Soybean cake	343	359	559	561	559	559	559	561	559
Soybean meal	108	810	977	980	977	977	977	980	977
Barley	253	1 144	1 452	1 456	1 452	1 452	1 452	1 456	1 452
Premix	6	274	341	342	341	341	341	342	341
Soda	5	25	32	32	32	32	32	32	32
ZCM	-	101	128	128	128	128	128	128	128

Source: Gl data obal Innovation Trade, calculations

Consumption of raw materials for the production of whole-milk products is determined taking into account the volume of milk processing and the structure of the products, as well as the norm of consumption of raw materials per unit of production (Annex 9.6).

Table 29. Costs of raw materials for the production of CMP

Costs of raw materials for the production of CMP	Unit.	2025	2026	2027	2028	2029	2030	2031	2032
Reverse, 0.05%	r	2 229	2 950	2 950	2 950	2 950	2 950	2 950	2 950
Cream, 34%	r	284	376	376	376	376	376	376	376
eXact KEFIR-1 preapplication starter	ops.	1	1	1	1	1	1	1	1
ST-Body4	ops.	1	1	1	1	1	1	1	1
YoFlex - 812	ops.	1	1	1	1	1	1	1	1
Curd sourdough	kg	0	0	0	0	0	0	0	0
Stabilizer Pectin	kg	0	0	0	0	0	0	0	0
Fruit filler	kg	50	66	66	66	66	66	66	66
Sugar	kg	17	22	22	22	22	22	22	22
PET bottle, 0.9 l	pcs.	310	410	410	410	410	410	410	410
PET bottle, 0.45 l	pcs.	1 302	1 723	1 723	1 723	1 723	1 723	1 723	1 723
PET bottle, 0.25 l	pcs.	387	512	512	512	512	512	512	512
Beaker 95 mm, 350 g	pcs.	918	1 215	1 215	1 215	1 215	1 215	1 215	1 215
Beaker 95 mm, 200 g	pcs.	3 563	4 715	4 715	4 715	4 715	4 715	4 715	4 715

Costs of raw materials for the production of CMP	Unit.	2025	2026	2027	2028	2029	2030	2031	2032
Beaker 95 mm, 100 g	pcs.	3 327	4 403	4 403	4 403	4 403	4 403	4 403	4 403
Transparent lid on the glass	pcs.	7 807	10 333	10 333	10 333	10 333	10 333	10 333	10 333
Aluminum lid on the cup	pcs.	7 807	10 333	10 333	10 333	10 333	10 333	10 333	10 333
Packing tape, 48 mm	м	91	121	121	121	121	121	121	121
Stretch film	м	57	76	76	76	76	76	76	76
Box label	pcs.	155	205	205	205	205	205	205	205
PVA-C glue (2.5 kg)	pcs.	2	3	3	3	3	3	3	3
Glue for corrugated cartons (20 kg bag)	kg	1	1	1	1	1	1	1	1
Corrugated tray 388*292*141, universal	pcs.	464	614	614	614	614	614	614	614
Corrugated box 397*263*186	pcs.	177	234	234	234	234	234	234	234
Pallet 1200x800	pcs.	6	8	8	8	8	8	8	8

Source: Global Innovation Trade data

Consumption of raw materials for cheese production is calculated taking into account the volume and structure of cheese production, as well as standards of consumption of raw materials and supplies for the production of units.

Table 30. Costs of raw materials for cheese production

Consumption of raw materials for cheese production	Unit.	2025	2026	2027	2028	2029	2030	2031	2032
Mesophilic starter MM101	г	79	105	105	105	105	105	105	105
Mesophilic starter MA11	г	7	9	9	9	9	9	9	9
Thermophilic starter TA45	г	19	25	25	25	25	25	25	25
Penicillium Candidum mold	г	5	7	7	7	7	7	7	7
Geotrichum Candidum mold	г	8	11	11	11	11	11	11	11
Propionic bacteria	г	80	106	106	106	106	106	106	106
Lipase	г	-	-	-	-	-	-	-	-
Calcium chloride 10%	ml	455	602	602	602	602	602	602	602
Liquid rennet	ml	579	767	767	767	767	767	767	767
Salt	г	13 383	17 712	17 712	17 712	17 712	17 712	17 712	17 712

Consumption of raw materials for cheese production	Unit.	2025	2026	2027	2028	2029	2030	2031	2032
Vinegar 9%	ml	33 404	44 209	44 209	44 209	44 209	44 209	44 209	44 209
Pickling brine 20%	л	100	133	133	133	133	133	133	133
Cheesy Figures	pcs.	120	159	159	159	159	159	159	159
Wax	г	10 037	13 284	13 284	13 284	13 284	13 284	13 284	13 284
Latex coating	г	1 472	1 948	1 948	1 948	1 948	1 948	1 948	1 948
Cheese bag	pcs.	56	74	74	74	74	74	74	74
Paper wrapping	pcs.	541	716	716	716	716	716	716	716
Label	pcs.	315	417	417	417	417	417	417	417
The box	pcs.	809	1 070	1 070	1 070	1 070	1 070	1 070	1 070
Corrugated box	pcs.	57	75	75	75	75	75	75	75

Source: Global Innovation Trade data

The accepted in the calculation standard costs of payment for the services of other organizations in the production of products are shown in the table below.

Table 31: Resource consumption rates

Indicators	Units of measure		2025	2026	2027	2028	2029	2030	2031	2032
Veterinary expenses	($/year)	with VAT 10%	3,01	3,12	3,25	3,38	3,52	3,65	3,78	3,92
Expenses on fuel and lubricants	($/year)	with VAT 10%	2,03	2,09	2,18	2,27	2,36	2,46	2,56	2,66
Farm and machinery maintenance costs	($/year)	with VAT 10%	1,60	1,66	1,73	1,79	1,86	1,93	2,00	2,08
Other expenses	($/year)	with VAT 10%	1,48	1,54	1,60	1,66	1,72	1,79	1,85	1,92
Electricity consumption per day	(kWh/day)		-	-	46,45	46,45	46,45	46,45	46,45	46,45
Water consumption per day	(m3 / day)		-	-	0,84	0,84	0,84	0,84	0,84	0,84

Source: Global Innovation Trade data

6.2.6. Number of employees and salaries

To form a staffing schedule of the production enterprise were analyzed: the concept of the project, the main business processes, the volume of basic and ancillary services, the timing of the purchase of the parent stock, technological characteristics of the equipment. As a result, the following structural units were formed in the staffing schedule:

1. Administrative staff.
2. General Department.
3. Sales Department.
4. Technical Service.
5. Veterinary and zootechnical service.
6. Livestock Service.
7. Milk processing service.

In the calculation part of the business plan was formed payroll based on the conditions of the above-mentioned structural units.

The project provides for the creation of at least 62 new jobs with a stable income and all social guarantees.

The average salary per employee of the company will be about $0.391 thousand per month.

With a total staff of 62 people and the established mode of operation annual payroll with charges at the end of the project (2032) will be 574.704 thousand dollars.

The list of staff units and the average monthly salary per employee by year of project implementation is shown in the table below.

Table 32. Average monthly salary of employees, including inflation, $/person.

Position	2024	2025	2026	2027	2028	2029	2030	2031	2032
Administrative staff									
Director	1475,6	1590,1	1668,8	1754,1	1842,0	1932,4	2025,4	2120,8	2218,6
Associate Director for production	1229,7	1325,1	1390,6	1461,7	1535,0	1610,4	1687,8	1767,4	1848,9
Chief Accountant	614,8	662,5	695,3	730,9	767,5	805,2	843,9	883,7	924,4
Deputy. Chief accountant	553,4	596,3	625,8	657,8	690,7	724,7	759,5	795,3	832,0
Accountant	307,4	331,3	347,7	365,4	383,7	402,6	422,0	441,8	462,2
Leading Economist on labor and wages	491,9	530,0	556,3	584,7	614,0	644,1	675,1	706,9	739,5
The Economist	368,9	397,5	417,2	438,5	460,5	483,1	506,4	530,2	554,7
Secretary	307,4	331,3	347,7	365,4	383,7	402,6	422,0	441,8	462,2
General Department	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Legal Counsel	491,9	530,0	556,3	584,7	614,0	644,1	675,1	706,9	739,5
Electronics Engineer	430,4	463,8	486,7	511,6	537,2	563,6	590,8	618,6	647,1
Warehouse manager	368,9	397,5	417,2	438,5	460,5	483,1	506,4	530,2	554,7

Manager at Procurement	368,9	397,5	417,2	438,5	460,5	483,1	506,4	530,2	554,7
Driver	307,4	331,3	347,7	365,4	383,7	402,6	422,0	441,8	462,2
Security Guard	245,9	265,0	278,1	292,4	307,0	322,1	337,6	353,5	369,8
Office cleaner premises	184,5	198,8	208,6	219,3	230,2	241,6	253,2	265,1	277,3
Sales	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Manager of sales	368,9	397,5	417,2	438,5	460,5	483,1	506,4	530,2	554,7
Driver	307,4	331,3	347,7	365,4	383,7	402,6	422,0	441,8	462,2
Technical Service	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Chief Power Engineer	614,8	662,5	695,3	730,9	767,5	805,2	843,9	883,7	924,4
Occupational Safety and Health Engineer security	368,9	397,5	417,2	438,5	460,5	483,1	506,4	530,2	554,7
The Mechanic	368,9	397,5	417,2	438,5	460,5	483,1	506,4	530,2	554,7
Electrician	368,9	397,5	417,2	438,5	460,5	483,1	506,4	530,2	554,7
Veterinary and zootechnical service	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Main veterinarian	737,8	795,0	834,4	877,0	921,0	966,2	1012,7	1060,4	1109,3
Chief zootechnician	737,8	795,0	834,4	877,0	921,0	966,2	1012,7	1060,4	1109,3
Veterinary Physician	307,4	331,3	347,7	365,4	383,7	402,6	422,0	441,8	462,2
Zootechnician	307,4	331,3	347,7	365,4	383,7	402,6	422,0	441,8	462,2
Livestock service is the norm 2000 heads	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Operator milking machines	0,0	307,4	322,6	339,1	356,1	373,6	391,6	410,0	428,9
Care Worker for animals	0,0	307,4	322,6	339,1	356,1	373,6	391,6	410,0	428,9
Care Operator for the youngsters	0,0	307,4	322,6	339,1	356,1	373,6	391,6	410,0	428,9
Operator milk storage facilities	0,0	307,4	322,6	339,1	356,1	373,6	391,6	410,0	428,9
Tractor Driver	0,0	307,4	322,6	339,1	356,1	373,6	391,6	410,0	428,9
Milk processing service - The norm is 240,000. liters	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Chief Technology Officer	0,0	737,8	774,3	813,9	854,7	896,7	939,8	984,1	1029,5
Hall employees	0,0	307,4	322,6	339,1	356,1	373,6	391,6	410,0	428,9

Source: Global Innovation Trade data

The planned number of personnel at the end of the project (2028) is shown in the table below.

Table 33. Number of employees

Position	Number of staff units, people.
Administrative staff	**8**
Director	1
Deputy Director of Production	1
Chief Accountant	1
Deputy Chief Accountant	1
Accountant	1
Lead Economist for Labor and Wages	1
The Economist	1
Secretary	1
General Department	**9**
Legal Counsel	1
Electronics Engineer	1
Warehouse manager	1
Purchasing Manager	1
Driver	1
Security Guard	2
Office cleaner	2
Sales	**3**
Sales Manager	1
Driver	2
Technical Service	**4**
Chief Power Engineer	1
Occupational Health and Safety Engineer	1
The Mechanic	1
Electrician	1
Veterinary and zootechnical service	**4**
Chief Veterinarian	1
Chief zootechnician	1
Veterinarian	1

Position	Number of staff units, people.
Zootechnician	1
Livestock service - the norm of 2000 heads	**15**
Machine milking operator	4
Animal Care Worker	4
Operator on the care of young animals	4
Milk storage operator	1
Tractor Driver	2
Milk processing service - the norm of 240 thousand liters	**19**
Chief Technology Officer	1
Hall employees	18
Total:	***62***

Source: Global Innovation Trade data

7.2.7 Overhead costs

The fixed costs of a project are costs that do not depend on changes in production volume.

The overhead rates are shown in the table below.

Table 34. Project overhead rates, 2024-2031.

Indicator	Measurement unit	2024	2025	2026	2027	2028	2029	2030	2031
Administrative and sales costs	(Thousands of dollars. / month). with VAT 20%	-	14,760	9,204	7,188	6,348	6,588	6,840	7,080
Land lease	(Thousands of dollars. / month). with VAT 20%	0,756	0,756	0,792	0,828	0,852	0,888	0,924	0,960
Insurance rate for herd formation costs	(%) of the cost of herd formation	0,00%	1,65%	1,65%	1,65%	1,65%	1,65%	1,65%	1,65%

Source: Global Innovation Trade data

7.1.1 Capital Costs and Depreciation

The capital cost schedule for the project by year is shown in the table below.

Table 35. Capital expenditures of the project, thous.

No. n/a	Name of work/services/goods	2023	2024	2025	Total
1	**Expenses for construction of buildings and structures**	907,15	10 233,67	3 856,48	14 997,30
1.1	- Designing	250,54	-	-	250,54
1.2	- Construction and installation work	656,62	6 134,27	2 023,93	8 814,80
1.3	- Equipment and commissioning	-	4 099,42	1 832,54	5 931,96
2	**Acquisition of livestock**	-	-	2 850,85	2 850,85
3	**Acquisition of equipment**	-	-	1 905,18	1 905,18
Total		**75 596**	907,15	10 233,67	8 612,50

Source: Global Innovation Trade data

Buildings and constructions are planned to be put into operation in April 2025, machinery and equipment will be put on the balance sheet in July 2025. Taking these data into account, depreciation of fixed assets is calculated on a straight-line basis.

Table 36. Calculation of depreciation charges, thousand dollars.

Subject	Linear accrual method	Cost of OS	2025	2026	2027	2028	2029	2030	2031
Buildings and structures	Group 8, useful life 20-25 years	8 814,8	330,6	440,7	440,7	440,7	440,7	440,7	440,7
Machinery and equipment	Group 5, useful life 7-10 years	7 837,1	559,8	1 119,6	1 119,6	1 119,6	1 119,6	1 119,6	1 119,6
Accrued depreciation of property, plant and equipment			-	890,	41 560,	31 560,	31 560,	31 560,	31 560,3

Source: Global Innovation Trade calculations

6.3. Calculation of the cost of production

The calculation shows the planned direct material costs for the period of the project.

Project variable costs are the costs of raw materials, goods and materials required to produce the product, as well as the wage costs of production personnel.

Table 37. Variable costs of the project, thousand dollars.

Variable costs	2024	2025	2026	2027	2028	2029	2030	2031
The Farm	**-**	**327,8**	**1 955,7**	**2 441,1**	**2 441,1**	**2 635,6**	**2 734,7**	**2 834,8**
Salaries of veterinary, zootechnical and livestock personnel services	-	36,2	86,4	90,9	90,9	100,1	104,9	109,9
Feed costs	-	161,1	750,3	970,2	970,2	1 045,1	1 083,0	1 121,3
General production expenses	-	130,4	1 012,4	1 269,2	1 269,2	1 370,9	1 422,8	1 475,3
Utility costs	-	-	106,6	110,8	110,8	119,5	123,9	128,4
Milk processing	**-**	**21,5**	**5 217,9**	**7 187,3**	**7 187,3**	**7 744,2**	**8 027,0**	**8 312,2**
Service wages dairy processing	-	-	40,3	83,0	83,0	91,5	95,9	100,4
Costs of raw materials for the production of CMP	**-**	**-**	**782,8**	**1 076,7**	**1 076,7**	**1 159,8**	**1 201,9**	**1 244,4**
The cost of purchasing milk	-	-	781,8	1 075,4	1 075,4	1 158,4	1 200,4	1 242,9
eXact KEFIR-1 preapplication starter	-	-	0,0	0,0	0,0	0,0	0,0	0,0
ST-Body4	-	-	0,0	0,0	0,0	0,0	0,0	0,0
YoFlex - 812	-	-	0,0	0,0	0,0	0,0	0,0	0,0
Curd sourdough	-	-	0,0	0,0	0,0	0,0	0,0	0,0
Stabilizer Pectin	-	-	0,0	0,0	0,0	0,0	0,0	0,0
Fruit filler	-	-	0,2	0,2	0,2	0,2	0,3	0,3
Sugar	-	-	0,0	0,0	0,0	0,0	0,0	0,0

PET bottle, 0.9 l	-	-	0,0	0,0	0,0	0,0	0,0	0,0
PET bottle, 0.45 l	-	-	0,1	0,1	0,1	0,1	0,1	0,1
PET bottle, 0.25 l	-	-	0,0	0,0	0,0	0,0	0,0	0,0
Beaker 95 mm 350 gr.	-	-	0,0	0,1	0,1	0,1	0,1	0,1
Beaker 95 mm 200 gr.	-	-	0,1	0,2	0,2	0,2	0,2	0,2
Beaker 95 mm 100 gr.	-	-	0,1	0,2	0,2	0,2	0,2	0,2
Transparent lid on the glass	-	-	0,1	0,1	0,1	0,1	0,1	0,1
Aluminum lid on the cup	-	-	0,1	0,1	0,1	0,1	0,1	0,1
Packing tape 48mm	-	-	0,0	0,0	0,0	0,0	0,0	0,0
Stretch film	-	-	0,0	0,0	0,0	0,0	0,0	0,0
Box label	-	-	0,0	0,0	0,0	0,0	0,0	0,0
PVA-C glue (2.5kg)	-	-	0,0	0,0	0,0	0,0	0,0	0,0
Glue for corrugated cartons (20kg bag)	-	-	0,0	0,0	0,0	0,0	0,0	0,0
Corrugated tray 388*292*141 - universal	-	-	0,1	0,1	0,1	0,2	0,2	0,2
Corrugated box 397*263*186	-	-	0,0	0,1	0,1	0,1	0,1	0,1
Pallet 1200x800	-	-	0,0	0,0	0,0	0,0	0,0	0,0
Costs of raw materials for cheese production	**-**	**-**	**4 222,8**	**5 808,6**	**5 808,6**	**6 256,5**	**6 483,9**	**6 713,0**
The cost of purchasing milk	-	-	4 221,9	5 807,3	5 807,3	6 255,1	6 482,4	6 711,5

Mesophilic starter MM101	-	-	0,1	0,2	0,2	0,2	0,2	0,2
Mesophilic starter MA11	-	-	0,0	0,0	0,0	0,0	0,0	0,0
Thermophilic starter TA45	-	-	0,0	0,0	0,0	0,0	0,0	0,0
Penicillium Candidum mold	-	-	0,0	0,1	0,1	0,1	0,1	0,1
Geotrichum Candidum mold	-	-	0,0	0,1	0,1	0,1	0,1	0,1
Propionic bacteria	-	-	0,1	0,1	0,1	0,1	0,1	0,1
Lipase	-	-	-	-	-	-	-	-
Calcium chloride 10%	-	-	0,0	0,0	0,0	0,0	0,0	0,0
Liquid rennet	-	-	0,1	0,1	0,1	0,1	0,1	0,1
Salt	-	-	0,0	0,0	0,0	0,0	0,0	0,0
Vinegar 9%	-	-	0,0	0,0	0,0	0,0	0,0	0,0
Pickling brine 20%	-	-	0,0	0,0	0,0	0,0	0,0	0,0
Cheesy Figures	-	-	0,1	0,1	0,1	0,1	0,1	0,1
Wax	-	-	0,1	0,1	0,1	0,1	0,1	0,1
Latex coating	-	-	0,0	0,0	0,0	0,0	0,0	0,0
Cheese bag	-	-	0,0	0,0	0,0	0,0	0,0	0,1
Paper wrapping	-	-	0,0	0,1	0,1	0,1	0,1	0,1
Label	-	-	0,0	0,0	0,0	0,0	0,0	0,0

The box	-	-	0,3	0,4	0,4	0,4	0,4	0,4
Corrugated box	-	-	0,0	0,0	0,0	0,0	0,0	0,0
Expenses for the maintenance of the main funds	-	-	51,6	71,0	71,0	76,6	79,5	82,4
Other expenses	-	21,5	53,8	56,1	56,1	60,8	63,2	65,7
Electricity	-	-	61,5	84,7	84,7	91,4	94,7	98,2
Water	-	-	5,1	7,1	7,1	7,6	7,9	8,2
TOTAL variable costs, including VAT	**-**	**349,3**	**7 173,6**	**9 628,3**	**9 628,3**	**10 379,7**	**10 761,7**	**11 147,0**
VAT 20%	-	30,4	258,6	320,3	320,3	345,9	359,0	372,2
VAT 10%	-	16,1	153,2	204,6	204,6	220,4	228,4	236,4
Variable costs excluding VAT	**-**	**302,8**	**6 761,8**	**9 103,5**	**9 103,5**	**9 813,5**	**10 174,3**	**10 538,3**

Source: Global Innovation Trade calculations

The fixed costs of the project are shown in the table below.

Table 38. Fixed costs of the project, thousand dollars.

Fixed costs	2024	2025	2026	2027	2028	2029	2030	2031
Salaries of administrative, management, sales and marketing personnel support staff	50,79	118,26	142,12	155,24	163,01	171,02	179,25	187,69
Administrative and sales costs	0,00	0,00	5,53	5,39	5,39	6,59	6,83	7,08
Land lease	9,14	9,14	9,51	9,89	10,28	10,67	11,07	11,47
Insurance for the costs of herd formation	0,00	47,04	47,04	47,04	47,04	47,04	47,04	47,04
TOTAL permanent costs, including VAT	**59,93**	**174,44**	**204,19**	**217,55**	**225,72**	**235,32**	**244,19**	**253,28**
TOTAL permanent costs excluding VAT	**58,40**	**165,08**	**193,85**	**207,16**	**215,27**	**224,60**	**233,37**	**242,35**

Source: Global Innovation Trade calculations

6.4. Revenue Calculation

Revenues from the sales of the project products were calculated taking into account the prices for the range of products planned for production and the volume of its production. Sales of manufactured products will begin in January 2026.

Below is a forecast of revenues from the sale of products planned for production by years of the project.

Table 39. Revenue from product sales, thous.

Product categories	2026	2027	2028	2029	2030	2031
Proceeds from the sale of farm products						
Population	816,10	1389,06	1442,32	1496,17	1550,54	1605,34
Goat milk	3127,32	4301,71	4466,64	4633,42	4801,80	4971,49
Proceeds from sales of processed products goat milk	0,00	0,00	0,00	0,00	0,00	0,00
Milk 3.2% 0.9 g	116,35	169,31	185,41	202,28	209,45	216,66
Milk 3.2% 0.5 g	151,94	221,10	242,12	264,15	273,51	282,93
Milk 1.5% 0.9g	108,55	157,97	172,99	188,73	195,41	202,14
Milk 1.5% 0.5g	115,89	168,64	184,68	201,48	208,62	215,81
Kefir 2.5% 0.9g	35,65	51,88	56,81	61,98	64,18	66,39
Kefir 2.5% 0.5g	28,36	41,27	45,19	49,31	51,05	52,81
Yogurt 2.5% 0.1g	66,87	97,31	106,56	116,26	120,38	124,52

Yogurt 1.5% 0.45g	33,94	49,39	54,08	59,00	61,09	63,20
Yogurt 1.5% 0.25g	37,36	54,36	59,53	64,95	67,25	69,57
Sour cream 20% 0.35g	327,44	476,48	521,78	569,26	589,43	609,73
Sour cream 20% 0,2g	225,80	328,59	359,83	392,57	406,48	420,48
Cottage cheese 1.5% 0.25g	353,25	514,04	562,92	614,14	635,90	657,81
Cottage cheese 10% 0.25g	88,71	129,09	141,36	154,22	159,69	165,19
Soft cheese (Camembert)	7936,27	11548,71	12646,73	13797,47	14286,47	14778,52
Semi-soft cheese	62,99	91,66	100,37	109,50	113,38	117,29
Semi-hard cheese (Gouda, Edam)	377,92	549,94	602,23	657,02	680,31	703,74
Hard cheese (type Emmental)	251,95	366,63	401,48	438,01	453,54	469,16
Soft cheese (Ricotta)	2267,51	3299,63	3613,35	3942,13	4081,85	4222,44
Total revenue including VAT	**16530,15**	**24006,77**	**25966,38**	**28012,06**	**29010,36**	**30015,22**
Total revenue excluding VAT	**15027,41**	**21824,33**	**23605,80**	**25465,51**	**26373,05**	**27286,57**

Source: Global Innovation Trade calculations

6.5. Initial working capital requirement

To cover the cash deficit in the initial period of the project in the amount of 649.560 thousand dollars, as well as for payments on the loan in the amount of 2164.992 thousand dollars will be invested by shareholders in the period from January 2024 to December 2025. In the future, the source of financing of working capital will be the proceeds from the sale of the project products.

6.6. Investment costs

The structure of investment costs is shown in the table below.

Table 40. Investment costs, thousand dollars.

Indicator	2020	2021	2022	Total
Capital expenditures	907,2	10 233,7	8 612,5	19 753,3
Ongoing expenses	-	602,1	2 212,5	2 814,6
Total investment costs	907,2	10 835,8	10 824,9	22 567,9

6.7. Calculation of profits and losses and cash flows

The table below shows the calculation of profits and losses by years of the project. The calculation showed that the project becomes profitable from 2026.

Table 41. Projected statement of financial results of the project, thousand dollars.

Income / expense item	2024	2025	2026	2027	2028	2029	2030	2031
Revenue from sales without VAT	0,0	0,0	15027,4	21824,3	23605,8	25465,5	26373,1	27286,6
Direct costs without VAT	0,0	302,8	6761,8	9103,5	9103,5	9813,5	10174,3	10538,3
Gross income	0,0	-302,8	8265,6	12720,9	14502,3	15652,1	16198,7	16748,2
General business fixed costs excluding VAT	58,4	165,1	193,8	207,2	215,3	224,6	233,4	242,4
Taxes (except income tax)	16,3	49,6	86,3	105,6	110,9	116,4	122,0	127,7
EBITDA	-74,7	-517,5	7985,4	12408,1	14176,1	15311,1	15843,4	16378,2
EBITDA, % (to revenue) average	0%	0%	53,1%	56,9%	60,1%	60,1%	60,1%	60,0%
Depreciation of fixed assets	0	130 028	130 028	130 028	130 028	130 028	130 028	130 028
EBIT	-74,7	-2077,8	6425,1	10847,7	12615,8	13750,7	14283,0	14817,8
Payment of interest on loans and credits	525,9	1639,1	1792,9	1469,4	1145,9	822,3	498,8	175,3
Profit (Loss) before taxation	-600,6	-3716,9	4632,2	9378,3	11469,9	12928,4	13784,3	14642,6
Income tax	0,0	0,0	926,4	1875,7	2294,0	2585,7	2756,9	2928,5
Net income	-600,6	-3716,9	3705,7	7502,7	9175,9	10342,7	11027,4	11714,1
Return on sales	0%	0%	25%	34%	39%	41%	42%	43%

Source: Global Innovation Trade calculations

Cash flow projections by year are shown in the table below. Cash flow forecast by months is shown in Appendix 9.7. Positive cash flow balance for the entire calculation period indicates the feasibility of the project.

Table 42. Projected statement of cash flows, thous.

Cash flow	Cycle 0	2024	2025	2026	2027	2028	2029	2030	2031
INVESTMENT CASH POTUS (IPP)	-907,2	-8609,6	-10236,6	0,0	0,0	0,0	0,0	0,0	0,0
OPERATING CASH FLOW (UDP)	0,0	-602,1	-2212,4	6346,6	10710,2	12185,1	13872,6	14626,8	15383,5
Income total	0,0	0,0	0,0	16530,2	24006,8	25966,4	28012,1	29010,4	30015,2
Costs total	0,0	602,1	2212,4	10183,5	13296,6	13781,3	14139,5	14383,5	14631,7
CASH FLOW (FDP)	907,2	9211,7	12449,0	-2633,8	-2633,8	-2633,8	-2633,8	-2633,8	-2633,8
Payment of the body of the debt	0,0	0,0	0,0	2633,8	2633,8	2633,8	2633,8	2633,8	2633,8
Own funds	907,2	1992,5	3865,6	0,0	0,0	0,0	0,0	0,0	0,0
Borrowed funds	0,0	7219,2	8583,4	0,0	0,0	0,0	0,0	0,0	0,0
Net cash flow (NFC)	0,0	0,0	0,0	3712,9	8076,4	9551,3	11238,8	11993,1	12749,7
Cumulative NPD	0,0	0,0	0,0	3712,9	11789,2	17627,7	20790,1	23231,9	24742,8

Source: Global Innovation Trade calculations

6.8. Sources, forms and conditions of financing

The project will be funded at **$22,567,884,000.**

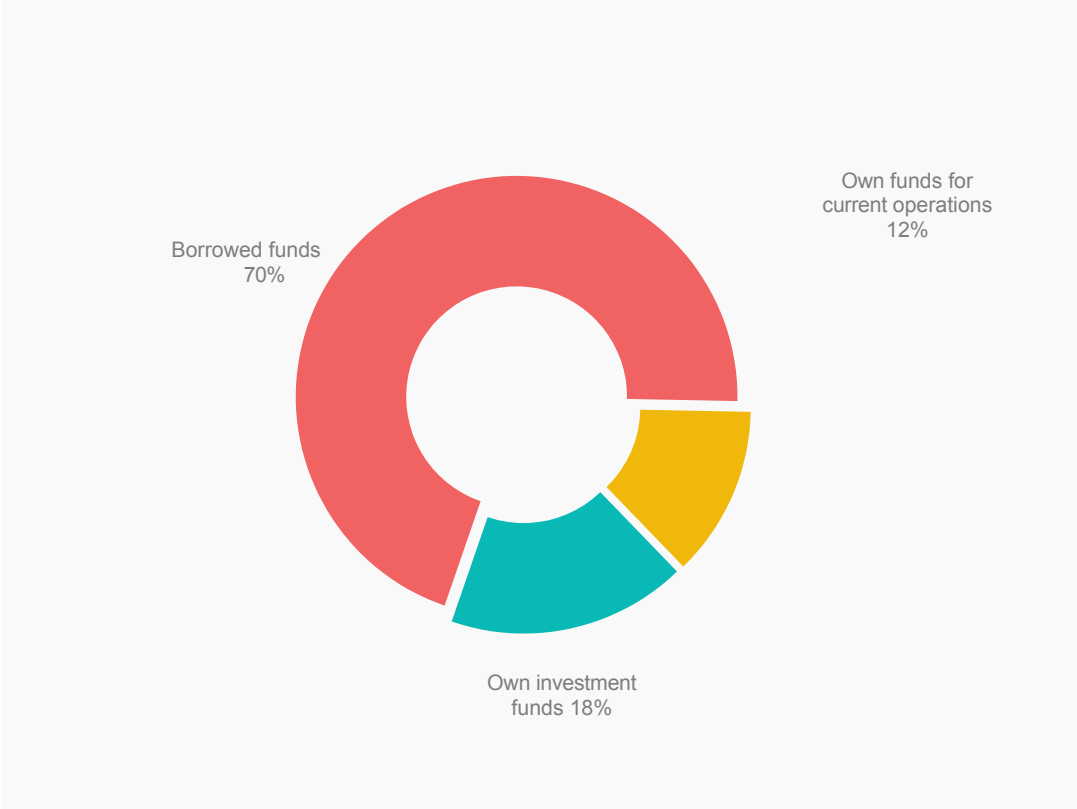
The project plans to use funds:

1. Investment loan - $15,802,668 thousand.
2. Own funds for co-financing investments - $3,950,664 thousand.
3. Own funds for current operations and payments on the loan - $2,814,552 thousand.

The investment loan is planned for 8 years at 13% per annum with a deferral of payments on principal debt for 2 years.

Own funds to finance the project is planned in the amount of $ 6,765.216 thousand, of which $ 3,950.664 thousand for co-financing investments, $ 2,814.552 thousand to ensure the current activity at the initial stage of the project at the expense of shareholders' funds.

Figure 10. Project financing structure



Source: Global Innovation Trade calculations

6.9. Evaluating the economic efficiency of the project

6.9.1. Methodology for assessing the effectiveness of the project

Analysis of project efficiency was conducted using the methodology recommended in the "Methodological Recommendations for Evaluating the Effectiveness of Investment Projects.

6.9.2. Project performance indicators

Performance indicators of an investment project allows you to determine the effectiveness of investment of funds in a particular project. The following indicators are used for this purpose:

- net discounted (discounted) income (cash flow);
- net present value, NPV;
- payback period (time), PBP;
- discounted payback period, DPBP;
- internal rate of return (profitability);
- investment rate of return, IRR (modified investment rate of return, MIRR);
- profitability index;
- profitability index;

6.9.3. Net present value (NPV)

Net Present Value (NPV) is the sum of discounted simultaneous differences between the benefits and costs of a project. - The sum of the discounted simultaneous differences between the benefits and costs of a project. It is the sum of cash flows (receipts and payments) associated with operational and investment activities, reduced (discounted) at the beginning of the investment.

Net discounted income NPV is calculated by the formula:

$$NPV = \sum_{t=o}^{T} \frac{CFt}{(1+i)^t},$$

where i is the discount rate;

CFt - net cash flow of period t; T - duration of

the project in periods.

The NPV calculation is a standard method of evaluating the effectiveness of an investment project, which shows an estimate of the effect of the investment, reduced to the present time, taking into account the varying time value of money. If the NPV is greater than 0, the investment is profitable, otherwise the investment is unprofitable.

With the help of NPV can also assess the relative effectiveness of alternative investments (with the same initial investment is more profitable project with the highest NPV).

Positive qualities of NPV:

- clear criteria for decision-making;
- consideration of the value of money over time (using the discount factor in the formulas).

Negative qualities NPV associated with the fact that this indicator does not take into account:

- risks;
- probability of event outcomes, since all cash flows and discount factor are predicted values.

The net discounted income of the presented project is **11,545.7448 thousand dollars.**

6.9.4. Internal rate of return (IRR)

In the case of heterogeneous cash flows, as in this project, can be applied appropriate analogue of IRR - the modified internal rate of return (MIRR).

The calculation algorithm involves several procedures. First, the total discounted value of all outflows and the total accrued value of all inflows are calculated, and both discounting and accretion are performed at the price of the project's financing source. The accrued value of inflows is called the terminal value. Then the discount rate is determined, which equalizes the total present value of outflows and the terminal value, which in this case is the MIRR. So, the general formula for calculation is as follows:

$$\sum_{t=0}^{N} \frac{OF_t}{(1+r)^1} = \frac{\sum_{t=0}^{N} IF_t(1+r)^{n-1}}{(1+MIRR)^n},$$

where $_{OFt}$ - cash outflow in the N-th period (in absolute value); $_{IFt}$ - cash inflow in the

N-th period;

r - the cost of the source of funding for this project; n - the duration of the project.

The internal rate of return of this project is **31.84%**, which is significantly higher than the discount rate and is

excellent for projects of this kind.

6.9.5. Payback Period (PBP)

Payback period (PBP) - expected period of reimbursement of the initial investment from the net cash proceeds, i.e. the time for which the proceeds from the operating activities of the enterprise will exceed the costs of the investment.

PBP payback period is calculated using the formula:

PBP= Investments/ACF,

where Investments is the initial investment;

ACF - Annual Cash Flow (average annual amount of net cash flow). The payback

period of the project is **5 years and 9 months**.

6.9.6. Discounted Payback Period (DPBP)

Discounted Payback Period (DPBP) - payback period (see above), but including discounting. The discounted

payback period DPBP is calculated by the formula:

DPBP=t_-NPV_(t_)/(NPV_(t+)- NPV_(t_)),

Where $_{t-}$ and t_{+} are the periods when negative and positive NPV were observed. The discounted payback

period of the project since January 2021 is **5 years and 8 months**.

The discounted payback period including interest and loan fees is **6 years and 9 months**.

6.9.7. Other indicators

The accepted discount rate is 14%. The justification of the discount rate is given in clause 7.1. Loan coverage ratio during the term of the loan is 2.66.

7. Project risk analysis

7.1. Project sustainability analysis

For effective project implementation, a program of measures will be developed to control, prevent or mitigate key risks and their negative effects that may significantly affect the results of project implementation. In developing the program of measures will take into account existing and actively used in international practice, principles and approaches, providing:

- identification and assessment of risks that could adversely affect the results of the project; identification of the most critical risks for the project;
- Development of initiatives aimed at preventing or mitigating the most critical risks to the project and their negative consequences.

The risks to which the project is exposed are divided into several groups: market, macroeconomic, financial, currency, organizational, technological, political and environmental. Identification of the most critical risks that require special measures and initiatives aimed at their prevention, leveling or reduction of negative consequences involves assessing the likelihood of risks and the degree of negative impact of risks on the project's activities.

Assessment of the probability of occurrence and the degree of negative impact of the risks identified as likely to adversely affect the implementation of the project is reflected in the summary map of risks of the project. The most significant for the project are macroeconomic, market and organizational risks.

Table 43. Value of the key performance indicators of the project when the risk factors change by 10%

Risk Factors (R):	Minimum value of cash balance at the end of the period (NV) [*]	Discounted net cash flow (NPV)	Coverage Ratio Over the Life of the Loan (LLDSCR)
10% decrease in sales revenue	243,7	4 831,9	2,01
increase in the interest rate on the Bank's loan by 10%	2 089,3	x	2,09
increase in the budget of the investment project by 10%	1 980,5	10 039,3	2,58
increase in operating expenses by 10%	183,6	8 043,5	2,33
Initial values of indicators (for comparison)	5,2	11 545,7	**2,66**
Maximum change	4,8	0,0	**0,24**

Source: Global Inn calculations ovation Trade based on The calculation tables G lobal Innovation Trade

Table 44. Value of the key performance indicators of the project when the risk factors change by 20%

Risk Factors (R):	Minimum value of cash balance at the end of the period (NV) [*]	Discounted net cash flow (NPV)	Coverage Ratio Over the Life of the Loan (LLDSCR)
a 20% decrease in sales revenue	1 345,7	1 881,9	1,37
an increase in the interest rate on the Bank's loan by 20%	4 441,9		1,73
increase in the budget of the investment project by 20%	3 955,8	8 532,9	2,50
an increase in operating expenses of 20%	431,1	4 541,3	1,99
Initial values of indicators (for comparison)	5,2	11 545,7	**2,66**
Maximum change	10,3	0,01	**0,48**

Source: Global Innovation Trade calculations based on Global Innovation Trade calculation tables

Table 45. Value of the key performance indicators of the project when the risk factors change by 30%

Risk Factors (R):	Minimum value of cash balance at the end of the period (NV) [*]	Discounted net cash flow (NPV)	Coverage Ratio Over the Life of the Loan (LLDSCR)
30% decrease in sales revenue	6 675,85	8 595,73	0,73
an increase in the interest rate on the Bank's loan by 30%	7 642,97		1,47
increase in the budget of the investment project by 30%	5 931,17	7 026,46	2,42
an increase in operating expenses of 30%	971,34	1 039,14	1,66
Initial values of indicators (for comparison)	5,16	11 545,74	**2,66**
Maximum change	17,75	0,02	**0,73**

Source: Global Inn calculations ovation Trade based on The calculation tables G lobal Innovation Trade

According to the results of the analysis, there is the greatest dependence of project efficiency on changes in sales revenue and the interest rate on the loan from the Bank.

A qualitative analysis of the main risks of the project is presented in the table below

Table 46. Qualitative analysis of project risks

Risk	Probability and degree of danger. Manifestations of negative impact	Risk leveling tools
	Production risks	
Failure of technological equipment	Probability: medium Degree of danger: high Impact: production stoppage	Timely maintenance of equipment, availability of spare parts
Lack of qualified personnel, lack of competent technologists/engineers	Probability: medium Degree of hazard: high Impact: disruption of the production cycle	Effective personnel policy, attractive motivation system
Disruption of deliveries to the consumer due to logistics problems	Probability: low Degree of danger: low Impact: decrease in sales	Supply chain optimization
	Market risks	
Dumping by competitors	Probability: low Degree of danger: high Impact: decrease in profit	Cost reduction
	Financial risks	
Delayed payment from customers	Probability: low Degree of danger: low Impact: lack of working capital of the company	Tracking of payment schedule for delivered products (rendered services), control of compliance with obligations
Shortage of working capital in the investment phase of the project	Probability: low Degree of danger: medium Impact: "freezing" the project	Planning of expenses and cash receipts in the investment phase of the project

Source: Global Innovation Trade analysis

In general, we can say that the project does not have any critical risks.

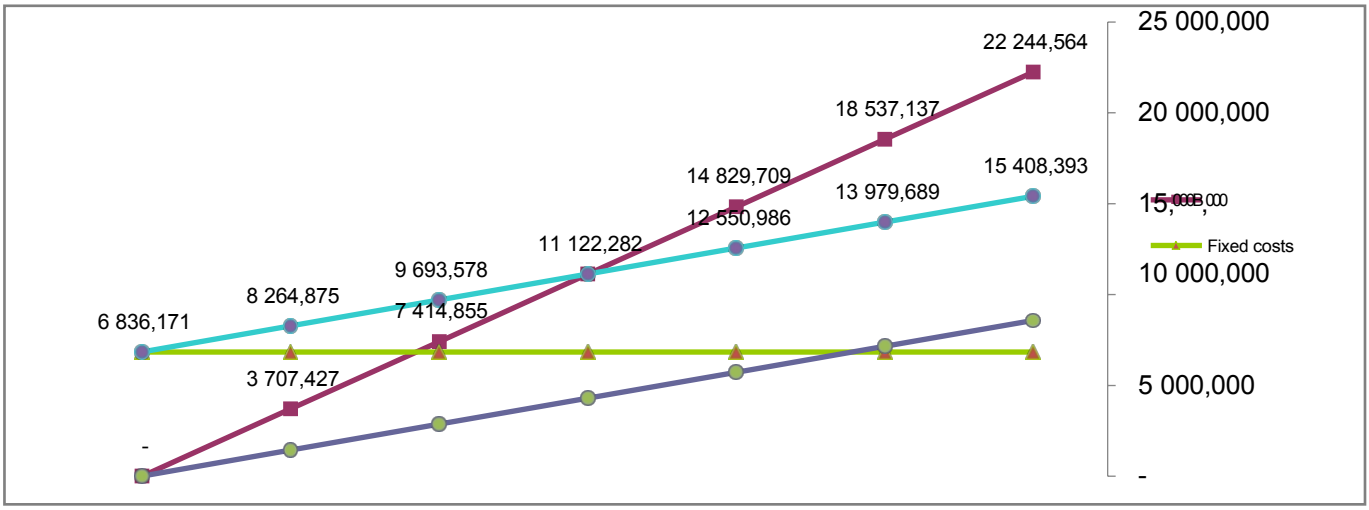
7.2. Project break-even point

The break-even point determines what the volume of sales should be in order for production to work on a break-even basis, to cover all its costs without making a profit. To calculate the break-even point, we have to divide the costs into two components:

1. Variable costs - increasing in proportion to the increase in production (volume of services).
2. Fixed costs - does not depend on the number of services rendered (goods sold) and whether the volume of operations is increasing or decreasing.

For this project, the graph of the dependence of profit on sales volume will look as follows.

Figure 11. Break-even point chart, thousand dollars.



Source: Global Innovation Trade analysis and calculations

The break-even point is of great importance in the stability of the company and its solvency. Thus, the degree to which sales volume exceeds the break-even point determines the financial strength (margin of safety) of the company.

The break-even point of the project is equal to **11 122,28** thousand dollars. This means that a year should produce **at least 11 122,28 thousand dollars** to make a profit on sales (this is about 44% of the planned volume of services, production and sales of products).

The low value of the break-even point indicates a significant level of solvency of the enterprise and a high level of its financial reliability.

7.3. equipment, livestock, raw materials and supplies.

№	Cost item	The amount of investment, thousand dollars.
1	Buildings and structures	8 814,8
2	Machinery and equipment	7 837,1
3	Animals	2 850,9
4	Other investments	250,5
5	Ongoing expenses	2 814,5
	Total	***22 567,9***
	among them	-
	investment credit, including	*15 802,7*
	Buildings and structures	*6 840,7*
	Machinery and equipment	*6 571,5*
	Animals	*2 390,5*
	Other investments	-
	own funds for co-financing investments	*3 950,7*
	Own funds for current expenses and loan payments	*2 814,5*

7.4. Annual herd turnover

Indicators	Unit.	Comm.	2024	2025	2026	2027	2028	2029	2030	2031
Number of heads in the herd	**(heads)**		**-**	**3 104**	**9 648**	**11 620**	**11 619**	**11 619**	**11 619**	**11 619**
Goat Producers	(heads)		-	128	183	232	232	232	232	232
Dairy goats	(heads)		-	-	4 641	5 248	5 248	5 248	5 248	5 248
Dry goats	(heads)		-	2 976	404	1 152	1 152	1 152	1 152	1 152
Goats (0-2 months)	(heads)		-	-	691	877	877	877	877	877
Goats (3-5 months)	(heads)		-	-	1 010	1 281	1 281	1 281	1 281	1 281
Goats (6-7 months)	(heads)		-	-	1 012	663	663	663	663	663
Goats (0-2 months)	(heads)		-	-	691	877	877	877	877	877
Goats (3-5 months)	(heads)		-	-	1 010	1 281	1 281	1 281	1 281	1 281
Repairable goats (6-11 months)	(heads)		-	-	6	9	8	8	8	8

7.5. Daily ration of feeding herd, kg/goal.

Daily ration of the herd	The assholes are the producers.	Dairy goats	Dry goats	Goats (0-2 months)	Goats (3-5 months)	Goats (6-7 months)	Goats (0-2 months)	Goats (3-5 months)	Repairable goats (6-11 months)
Vine-oat mixture	2,5	3,00	2,8	0,3	0,03	3,0	0,3	0,03	3,0
NMS silo (Kornage)	3,5	3,00	0,1	-	0,04	1,1	-	0,04	1,1
Soybean cake	0,4	-	0,7	-	-	0,3	-	-	0,3
Soybean meal	-	0,45	0,2	-	0,02	-	-	0,02	-
Barley	0,4	0,54	0,5	-	0,20	-	-	0,20	-
Premix	0,1	0,04	0,0	0,4	-	-	0,4	-	-
Soda	0,0	0,01	0,0	-	0,01	-	-	0,01	-
ZCM	-	-		0,2	-	-	0,2	-	-

7.6. Consumption rates of raw materials per unit of CMP and cheese

Consumption rates of raw materials per unit of whole-milk products

Indicator	Unit of measure	Moloko 3.2% 0.9g	3.2% milk 0,5r	Moloko 1.5% 0.9g	Moloko 1.5% 0.5g	Kefir 2.5% 0,9r	Kefir 2.5% 0,5r	2.5% yogurt 0,1r	1.5% yogurt 0,45r	1.5% yogurt 0,25r	sour cream 20% 0.35g	sour cream 20% 0.2g	cottage cheese 1.5% 0,25r	10% cottage cheese 0,25r
Package weight	(kg/piece)	0,9000	0,5000	0,9000	0,5000	0,9000	0,5000	0,1000	0,4500	0,2500	0,3500	0,2000	0,2500	0,2500
Output of CMP according to the formulation	(kg / kg)	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000
Consumption rate of milk	(l/kg)	1,0594	1,0594	1,1179	1,1179	1,0835	1,0835	1,0835	1,1179	1,1179	0,4815	0,4815	1,0024	4,9888
Reverse, 0.05%	(g/kg)	-	-	-	-	-	-	-	-	-	-	-	7,3794	2,5398
Cream, 34%	(g/kg)	(0,0336)	(0,0336)	(0,0906)	(0,0906)	(0,0570)	(0,0570)	(0,0570)	(0,0906)	(0,0906)	0,5302	0,5302	-	-
Starter for eXact KEFIR- 1	(unit /kg)	-	-	-	-	0,0010	0,0010	-	-	-	0,0010	0,0010	-	-
ST-Body4	(unit /kg)	-	-	-	-	-	-	-	-	-	0,0010	0,0010	-	-
YoFlex - 812	(unit /kg)	-	-	-	-	-	-	0,0020	0,0020	0,0020	-	-	-	-
Curd sourdough	(kg / kg)	-	-	-	-	-	-	-	-	-	-	-	0,0000	0,0000
Stabilizer Pectin	(kg / kg)	-	-	-	-	-	-	0,0006	0,0006	0,0006	-	-	-	-

Indicator	Unit of measure	Moloko 3.2% 0.9g	3.2% milk 0,5r	Moloko 1.5% 0.9g	Moloko 1.5% 0.5g	Kefir 2.5% 0,9r	Kefir 2.5% 0,5r	2.5% yogurt 0,1r	1.5% yogurt 0,45r	1.5% yogurt 0,25r	sour cream 20% 0.35g	sour cream 20% 0.2g	cottage cheese 1.5% 0,25r	10% cottage cheese 0,25r
Fruit filler	(kg / kg)	-	-	-	-	-	-	0,1050	0,1050	0,1050	-	-	-	-
Sugar	(kg / kg)	-	-	-	-	-	-	0,0350	0,0350	0,0350	-	-	-	-
PET bottle, 0.9 l	(pcs/ kg)	1,1300	-	1,1300	-	1,1300	-	-	-	-	-	-	-	-
PET bottle, 0.45 l	(pcs/ kg)	-	2,2500	-	2,2500	-	2,2500	-	2,2500	-	-	-	-	-
PET bottle, 0.25 l	(pcs/ kg)	-	-	-	-	-	-	-	-	4,0400	-	-	-	-
Beaker 95 mm 350 gr.	(pcs/ kg)	-	-	-	-	-	-	-	-	-	2,8900	-	-	-
Beaker 95 mm 200 gr.	(pcs/ kg)	-	-	-	-	-	-	-	-	-	-	5,0500	5,0500	5,0500
Beaker 95 mm 100 gr.	(pcs/ kg)	-	-	-	-	-	-	10,1000	-	-	-	-	-	-
Transparent lid on the glass	(pcs/ kg)	-	-	-	-	-	-	10,1000	-	-	2,8900	5,0500	5,0500	5,0500
Aluminum lid on the cup	(pcs/ kg)	-	-	-	-	-	-	10,1000	-	-	2,8900	5,0500	5,0500	5,0500
Packing tape 48mm	(m/kg)	-	-	-	-	-	-	-	-	-	0,0925	0,0875	0,0875	0,0875
Stretch film	(m/kg)	0,0725	0,0579	0,0725	0,0579	0,0725	0,0579	-	-	0,0725	-	-	-	-

Indicator	Unit of measure	Moloko 3.2% 0.9g	3.2% milk 0,5r	Moloko 1.5% 0.9g	Moloko 1.5% 0.5g	Kefir 2.5% 0,9r	Kefir 2.5% 0,5r	2.5% yogurt 0,1r	1.5% yogurt 0,45r	1.5% yogurt 0,25r	sour cream 20% 0.35g	sour cream 20% 0.2g	cottage cheese 1.5% 0,25r	10% cottage cheese 0,25r
Box label	(pcs/ kg)	0,0930	0,1850	0,0930	0,1850	0,0930	0,1850	-	-	0,3340	-	-	-	-
PVA-C glue (2.5kg)	(pcs/ kg)	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	-	-	0,0000	0,0021	0,0018	0,0018	0,0018
Glue for corrugated cartons (20kg bag)	(kg / kg)	0,0007	0,0013	0,0007	0,0013	0,0007	0,0013	-	-	0,0024	-	-	-	-
Corrugated tray 388*292*141 - universal	(pcs/ kg)	-	-	-	-	-	-	0,5820	-	-	0,2910	0,2550	0,2550	0,2550
Corrugated box 397*263*186	(pcs/ kg)	0,1000	0,2000	0,1000	0,2000	0,1000	0,2000	-	0,2000	0,3500	-	-	-	-
Pallet 1200x800	(pcs/ kg)	0,0029	0,0023	0,0029	0,0023	0,0029	0,0023	0,0029	0,0023	0,0029	0,0023	0,0029	0,0029	0,0029
Teploenergoresurs ы	(kg / kg)	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000
Salaries of direct production personnel	(kg / kg)	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000
Auxiliary materials	(kg / kg)	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000

Consumption rates of raw materials per unit of cheese

Indicator	Measurement unit	Soft cheese (Camembert)	Semi-soft cheese	Semi-hard cheese (Gouda, Edam)	Hard cheese (Emmental type)	Soft cheese (Ricotta)
Head weight	(kg/piece)	0,3000	4,5000	4,5000	4,5000	0,2500
Cheese yield according to the recipe	(kg)	0,3000	1,0000	1,0000	1,0000	0,2500
Consumption rate of milk (whey for ricotta)	(л)	2,0000	8,0000	8,0000	8,0000	8,0000
Mesophilic starter MM101	(g/liter)	0,0150	-	0,0550	0,0350	-
Mesophilic starter MA11	(g/liter)	-	0,0250	-	-	-
Thermophilic starter TA45	(g/liter)	-	-	-	0,0350	-
Penicillium Candidum mold	(g/liter)	0,0050	-	-	-	-
Geotrichum Candidum mold	(g/liter)	0,0075	-	-	-	-
Propionic bacteria	(g/liter)	-	-	-	0,1500	-
Lipase	(g/liter)	-	-	-	-	-
Calcium chloride 10%	(ml/liter)	0,1250	0,1500	0,2500	0,1500	-
Liquid rennet	(ml/liter)	0,2000	0,3150	0,2500	0,1500	-
Salt	(g/liter)	10,0000	10,0000	-	-	-
Vinegar 9%	(ml/liter)	-	-	-	-	15,6000
Pickling brine 20%	(liters/kg)	-	0,5000	0,5000	0,5000	-
Cheesy Figures	(pcs/kg)	-	0,6000	0,6000	0,6000	-

Indicator	Measurement unit	Soft cheese (Camembert)	Semi-soft cheese	Semi-hard cheese (Gouda, Edam)	Hard cheese (Emmental type)	Soft cheese (Ricotta)
Wax	(g/kg)	-	75,0000	75,0000	-	-
Latex coating	(g/kg)	-	-	-	22,0000	-
Cheese bag	(pcs/kg)	-	0,2800	0,2800	0,2800	-
Paper wrapping	(piece / piece)	1,0100	-	-	-	-
Label	(piece / piece)	-	1,0100	1,0100	1,0100	1,0100
The box	(piece / piece)	1,0070	-	-	-	1,0070
Corrugated box	(piece / piece)	0,0150	1,0000	1,0000	1,0000	0,0150
Aging period	(days)	10	30	60	90	-
Serum yield	(%)	80%	80%	80%	80%	-

7.7. Cash flow statement (by month)

Cash flow	0-й cycle	Jan.24	Feb.24	mar.24	Apr.24	May.24	Jun.24	July 24	Aug. 24	sen.24	Oct. 24	Nov.24	Dec. 24
INVESTMENT CASH FLOW (IDP)	-907,2	-218,9	-1644,8	-1168,6	-1168,6	-692,3	-383,7	-383,7	-383,7	-383,7	-537,2	-1107,4	-537,2
Buildings and structures	656,6	218,9	692,3	692,3	692,3	692,3	383,7	383,7	383,7	383,7	537,2	537,2	537,2
Machinery and equipment	0,0	0,0	952,6	476,3	476,3	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Livestock population	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	570,2	0,0
Other investments	250,5	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
OPERATING CASH FLOW	0,0	-2,6	-16,8	-26,8	-36,8	-42,8	-55,6	-58,9	-62,2	-65,5	-70,1	-79,6	-84,2
Revenue from sales products	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Costs total	0,0	2,6	16,8	26,8	36,8	42,8	55,6	58,9	62,2	65,5	70,1	79,6	84,2
Variable costs	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Fixed costs	0,0	0,8	0,8	0,8	0,8	0,8	8,0	8,0	8,0	8,0	8,0	8,0	8,0
Payments of interest on credit	0,0	1,9	16,0	26,0	36,1	42,0	45,3	48,6	51,9	55,2	59,8	69,3	73,9
Accrued taxes and payments	0,0	0,0	0,0	0,0	0,0	0,0	2,3	2,3	2,3	2,3	2,3	2,3	2,3
FINANCIAL CASH FLOW (FDP)	907,2	221,5	1661,6	1195,3	1205,4	735,0	439,3	442,6	445,9	449,2	607,4	1187,1	621,5
Payment of the body of the debt	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Own funds	907,2	38,0	282,4	215,5	225,5	154,6	117,6	120,9	124,2	127,5	156,9	258,5	171,0
Including own funds for co-financing investments	907,2	35,3	265,6	188,7	188,7	111,8	62,0	62,0	62,0	62,0	86,8	178,8	86,8
own funds for running costs	0,0	0,8	0,8	0,8	0,8	0,8	10,3	10,3	10,3	10,3	10,3	10,3	10,3
own funds for loan repayments	0,0	1,9	16,0	26,0	36,1	42,0	45,3	48,6	51,9	55,2	59,8	69,3	73,9

Credit	0,0	183,5	1379,2	979,8	979,8	580,5	321,7	321,7	321,7	321,7	450,5	928,6	450,5
Net cash flow (PDP)	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Cumulative NPD	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Cash balance at the beginning period	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Cash balance at the end of period	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Discounted NPD	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Discounted NPD cumulatively	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

Cash flow	Jan.25	fev.25	mar.25	Apr. 25	May.25	Jun 25	July 25	Aug. 25	sen.25	Oct. 25	Nov. 25	Dec. 25
INVESTMENT CASH FLOW (IDP)	-537,2	-1978,5	-495,6	-1493,4	-2372,8	-2184,2	-889,8	-285,1	0,0	0,0	0,0	0,0
Buildings and structures	537,2	495,6	495,6	495,6	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Machinery and equipment	0,0	1483,0	0,0	0,0	2372,8	1186,4	889,8	0,0	0,0	0,0	0,0	0,0
Livestock population	0,0	0,0	0,0	997,8	0,0	997,8	0,0	285,1	0,0	0,0	0,0	0,0
Other investments	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
OPERATING CASH FLOW	-95,3	-112,3	-116,5	-129,3	-149,7	-168,4	-179,8	-252,6	-251,6	-252,6	-251,6	-252,6
Revenue from sales products	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Costs total	95,3	112,3	116,5	129,3	149,7	168,4	179,8	252,6	251,6	252,6	251,6	252,6
Variable costs	0,0	0,0	0,0	0,0	0,0	0,0	1,9	69,9	68,8	69,9	68,8	69,9
Fixed costs	13,8	13,8	13,8	13,8	13,8	13,8	14,8	15,3	15,3	15,3	15,3	15,3
Payments of interest on credit	78,5	95,5	99,8	112,6	132,9	151,7	159,3	161,8	161,8	161,8	161,8	161,8
Accrued taxes and payments	2,9	2,9	2,9	2,9	2,9	2,9	3,8	5,6	5,6	5,6	5,6	5,6
FINANCIAL MONEY POTOC (FDP)	632,5	2090,8	612,1	1622,7	2522,5	2352,6	1069,6	537,7	251,6	252,6	251,6	252,6
Payment of the body of the debt	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Own funds	182,0	431,8	196,5	370,5	532,9	521,2	323,5	298,7	251,6	252,6	251,6	252,6
Including own funds for co-financing investments	86,8	319,5	80,0	241,2	383,2	352,7	143,7	46,0	0,0	0,0	0,0	0,0
own funds for running costs	16,8	16,8	16,8	16,8	16,8	16,8	20,5	90,9	89,8	90,9	89,8	90,9
own funds for loan repayments	78,5	95,5	99,8	112,6	132,9	151,7	159,3	161,8	161,8	161,8	161,8	161,8

Credit	450,5	1659,0	415,5	1252,2	1989,6	1831,5	746,1	239,0	0,0	0,0	0,0	0,0
Net cash flow (PDP)	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Cumulative NPD	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Cash balance at the beginning period	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Cash balance at the end of period	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Discounted NPD	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Discounted NPD cumulatively	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

Cash flow	Jan.26	Feb.26	mar.26	Apr.26	May.26	Jun 26	July 26.	Aug 26	sen.26	Oct. 26	Nov. 26	Dec. 26
INVESTMENT MONEY POTUS (IPP)	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Buildings and structures	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Machinery and equipment	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Livestock population	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Other investments	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
OPERATING CASH FLOW (UDP)	308,4	317,6	382,8	465,2	551,6	649,9	749,3	764,2	768,8	768,7	773,3	-153,2
Proceeds from product sales	962,5	962,5	1062,6	1173,5	1296,4	1432,7	1584,0	1611,2	1611,2	1611,2	1611,2	1611,2
Costs total	654,1	644,8	679,7	708,3	744,8	782,8	834,7	847,0	842,4	842,5	837,9	1764,4
Variable costs	470,1	463,0	500,2	531,0	569,8	608,3	660,5	675,1	672,8	675,1	672,8	675,1
Fixed costs	16,4	16,4	16,4	16,4	16,4	17,5	17,5	17,5	17,5	17,5	17,5	17,5
Payments of interest on the loan	161,8	159,5	157,3	155,0	152,8	150,5	148,3	146,0	143,8	141,5	139,3	137,1
Accrued taxes and payments	5,9	5,9	5,9	5,9	5,9	6,5	8,4	8,4	8,4	8,4	8,4	934,8
CASH FLOW (FDP)	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5
Payment of the body of the debt	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5
Own funds	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
including our own funds for co-financing of investments	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
own funds for current expenses	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
own funds to pay for credit	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Credit	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Net cash flow (NFC)	88,9	98,2	163,4	245,7	332,1	430,4	529,8	544,8	549,3	549,2	553,8	-372,7

Cumulative NPD	88,9	187,0	350,4	596,1	928,2	1358,6	1888,4	2433,1	2982,5	3531,7	4085,6	3712,9
Cash balance at the beginning of the period	0,0	88,9	187,0	350,4	596,1	928,2	1358,6	1888,4	2433,1	2982,5	3531,7	4085,6
Cash balance at the end of the period	88,9	187,0	350,4	596,1	928,2	1358,6	1888,4	2433,1	2982,5	3531,7	4085,6	3712,9
Discounted NPD	68,4	74,7	123,0	183,0	244,6	313,6	381,8	388,3	387,3	383,0	382,1	-254,3
Discounted NPD cumulatively	68,4	143,1	266,1	449,0	693,6	1007,2	1389,0	1777,3	2164,6	2547,7	2929,7	2675,4

Cash flow	Jan.27	fev.27	mar.27	Apr.27	May.27	Jun.27	July 27.	Aug. 27	sen.27	Oct. 27	Nov.27	Dec. 27
INVESTMENT CASH POTUS (IPP)	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Buildings and structures	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Machinery and equipment	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Livestock population	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Other investments	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
OPERATING CASH POTW (UDP)	1034,7	1045,9	1039,2	1044,4	1043,7	1048,9	1048,2	1050,5	1055,7	1055,0	1060,2	-816,2
Proceeds from product sales	2000,6	2000,6	2000,6	2000,6	2000,6	2000,6	2000,6	2000,6	2000,6	2000,6	2000,6	2000,6
Costs total	965,8	954,7	961,3	956,1	956,8	951,6	952,4	950,1	944,9	945,6	940,4	2816,8
Variable costs	804,1	795,2	804,1	801,1	804,1	801,1	804,1	804,1	801,1	804,1	801,1	804,1
Fixed costs	18,1	18,1	18,1	18,1	18,1	18,1	18,1	18,1	18,1	18,1	18,1	18,1
Payments of interest on the loan	134,8	132,6	130,3	128,1	125,8	123,6	121,3	119,1	116,8	114,6	112,3	110,1
Accrued taxes and payments	8,8	8,8	8,8	8,8	8,8	8,8	8,8	8,8	8,8	8,8	8,8	1884,5
CASH FLOW (FDP)	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5
Payment of the body of the debt	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5
Own funds	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
including our own funds for co-financing of investments	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
own funds for current expenses	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

own funds to pay for credit	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Credit	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Net cash flow (NFC)	815,3	826,4	819,7	825,0	824,2	829,4	828,7	831,0	836,2	835,5	840,7	-1035,7
Cumulative NPD	4528,1	5354,5	6174,2	6999,2	7823,4	8652,9	9481,6	10312,6	11148,8	11984,3	12824,9	11789,2
Cash balance at the beginning of the period	3712,9	4528,1	5354,5	6174,2	6999,2	7823,4	8652,9	9481,6	10312,6	11148,8	11984,3	12824,9
Cash balance at the end of the period	4528,1	5354,5	6174,2	6999,2	7823,4	8652,9	9481,6	10312,6	11148,8	11984,3	12824,9	11789,2
Discounted NPD	550,2	551,7	541,3	538,8	532,5	530,1	523,9	519,6	517,2	511,1	508,7	-619,9
Discounted NPD cumulatively	3225,6	3777,3	4318,6	4857,5	5390,0	5920,1	6443,9	6963,5	7480,7	7991,8	8500,5	7880,6

Cash flow	Jan.28	Feb.28	mar.28	Apr.28	May.28	Jun.28	July 28.	Aug.28	sen.28	Oct. 28	Nov.28	Dec. 28
INVESTMENT MONEY POTUS (IPP)	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Buildings and structures	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Machinery and equipment	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Livestock population	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Other investments	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
OPERATING CASH POTW (UDP)	1192,7	1201,1	1197,2	1202,5	1201,7	1207,0	1206,2	1208,4	1213,7	1212,9	1218,2	-1076,6
Proceeds from product sales	2163,9	2163,9	2163,9	2163,9	2163,9	2163,9	2163,9	2163,9	2163,9	2163,9	2163,9	2163,9
Costs total	971,2	962,8	966,7	961,4	962,2	956,9	957,7	955,4	950,1	951,0	945,6	3240,4
Variable costs	835,3	829,1	835,3	832,2	835,3	832,2	835,3	835,3	832,2	835,3	832,2	835,3
Fixed costs	18,8	18,8	18,8	18,8	18,8	18,8	18,8	18,8	18,8	18,8	18,8	18,8
Payments of interest on the loan	107,8	105,6	103,4	101,1	98,9	96,6	94,4	92,1	89,9	87,6	85,4	83,1
Accrued taxes and payments	9,2	9,2	9,2	9,2	9,2	9,2	9,2	9,2	9,2	9,2	9,2	2303,2
CASH FLOW (FDP)	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5
Payment of the body of the debt	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5
Own funds	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
including our own funds for co-financing of investments	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

own funds for current expenses	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
own funds to pay for credit	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Credit	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Net cash flow (NFC)	973,2	981,6	977,7	983,0	982,2	987,5	986,7	988,9	994,3	993,4	998,8	-1296,1
Cumulative NPD	12762,5	13744,1	14721,8	15704,8	16687,0	17674,5	18661,2	19650,1	20644,4	21637,8	22636,6	21340,5
Cash balance at the beginning of the period	11789,2	12762,5	13744,1	14721,8	15704,8	16687,0	17674,5	18661,2	19650,1	20644,4	21637,8	22636,6
Cash balance at the end of the period	12762,5	13744,1	14721,8	15704,8	16687,0	17674,5	18661,2	19650,1	20644,4	21637,8	22636,6	21340,5
Discounted NPD	576,2	574,8	566,3	563,2	556,6	553,6	547,1	542,4	539,4	533,1	530,1	-680,4
Discounted NPD cumulatively	8456,7	9031,6	9597,9	10161,1	10717,7	11271,3	11818,4	12360,8	12900,2	13433,3	13963,4	13282,9

Cash flow	Jan.29	fev.29	mar.29	Apr.29	May.29	June 29	July 29.	Aug. 29	sen.29	Oct. 29	Nov. 29	Dec. 29
INVESTMENT MONEY POTUS (IPP)	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Buildings and structures	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Machinery and equipment	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Livestock population	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Other investments	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
OPERATING CASH POTW (UDP)	1357,3	1369,1	1361,8	1367,2	1366,3	1371,7	1370,8	1373,0	1378,5	1377,5	1383,0	-1203,7
Proceeds from product sales	2334,3	2334,3	2334,3	2334,3	2334,3	2334,3	2334,3	2334,3	2334,3	2334,3	2334,3	2334,3
Costs total	977,0	965,2	972,5	967,1	968,0	962,6	963,6	961,3	955,9	956,8	951,4	3538,0
Variable costs	866,8	857,3	866,8	863,6	866,8	863,6	866,8	866,8	863,6	866,8	863,6	866,8
Fixed costs	19,6	19,6	19,6	19,6	19,6	19,6	19,6	19,6	19,6	19,6	19,6	19,6
Payments of interest on the loan	80,9	78,6	76,4	74,1	71,9	69,7	67,4	65,2	62,9	60,7	58,4	56,2
Accrued taxes and payments	9,7	9,7	9,7	9,7	9,7	9,7	9,7	9,7	9,7	9,7	9,7	2595,4
CASH FLOW (FDP)	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5
Payment of the body of the debt	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5
Own funds	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
including our own funds for co-financing of investments	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
own funds for current expenses	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

our own funds to pay for credit	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Credit	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Net cash flow (NFC)	1137,8	1149,6	1142,3	1147,8	1146,8	1152,2	1151,3	1153,6	1159,0	1158,0	1163,5	-1423,1
Cumulative NPD	22478,3	23628,0	24770,3	25918,1	27064,9	28217,1	29368,4	30522,0	31681,0	32839,0	34002,5	32579,3
Cash balance at the beginning of the period	21340,5	22478,3	23628,0	24770,3	25918,1	27064,9	28217,1	29368,4	30522,0	31681,0	32839,0	34002,5
Cash balance at the end of the period	22478,3	23628,0	24770,3	25918,1	27064,9	28217,1	29368,4	30522,0	31681,0	32839,0	34002,5	32579,3
Discounted NPD	590,9	590,5	580,4	576,8	570,1	566,6	560,0	555,0	551,5	545,1	541,7	-655,4
Discounted NPD cumulatively	13873,8	14464,4	15044,8	15621,6	16191,7	16758,3	17318,2	17873,2	18424,7	18969,8	19511,5	18856,1

Cash flow	Jan.30	fev.30	mar.30	Apr.30	May.30	Jun 30	July 30	Aug 30	sen.30	Oct. 30	Nov. 30	Dec. 30
INVESTMENT CASH POTUS (IPP)	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Buildings and structures	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Machinery and equipment	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Livestock population	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Other investments	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
OPERATING CASH POTW (UDP)	1434,4	1446,5	1438,8	1444,4	1443,3	1448,9	1447,8	1450,1	1455,6	1454,6	1460,1	-1297,8
Proceeds from product sales	2417,5	2417,5	2417,5	2417,5	2417,5	2417,5	2417,5	2417,5	2417,5	2417,5	2417,5	2417,5
Costs total	983,2	971,0	978,7	973,1	974,2	968,6	969,7	967,4	961,9	963,0	957,4	3715,3
Variable costs	898,7	888,8	898,7	895,4	898,7	895,4	898,7	898,7	895,4	898,7	895,4	898,7
Fixed costs	20,3	20,3	20,3	20,3	20,3	20,3	20,3	20,3	20,3	20,3	20,3	20,3
Payments of interest on the loan	53,9	51,7	49,4	47,2	44,9	42,7	40,4	38,2	35,9	33,7	31,5	29,2
Accrued taxes and payments	10,2	10,2	10,2	10,2	10,2	10,2	10,2	10,2	10,2	10,2	10,2	2767,0
CASH FLOW (FDP)	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5
Payment of the body of the debt	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5
Own funds	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
including our own funds for co-financing of investments	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
own funds for current expenses	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
own funds to pay for credit	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

Credit	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Net cash flow (NFC)	1214,9	1227,0	1219,4	1224,9	1223,9	1229,4	1228,4	1230,6	1236,2	1235,1	1240,6	-1517,3
Cumulative NPD	33794,2	35021,3	36240,6	37465,5	38689,4	39918,8	41147,2	42377,8	43613,9	44849,0	46089,7	44572,4
Cash balance at the beginning of the period	32579,3	33794,2	35021,3	36240,6	37465,5	38689,4	39918,8	41147,2	42377,8	43613,9	44849,0	46089,7
Cash balance at the end of the period	33794,2	35021,3	36240,6	37465,5	38689,4	39918,8	41147,2	42377,8	43613,9	44849,0	46089,7	44572,4
Discounted NPD	553,4	552,9	543,5	540,0	533,7	530,3	524,1	519,3	516,0	510,0	506,7	-612,9
Discounted NPD cumulatively	19409,5	19962,4	20505,8	21045,8	21579,5	22109,8	22633,8	23153,2	23669,2	24179,1	24685,8	24072,9

Cash flow	Jan.31	Feb.31	mar.31	Apr.31	May.31	Jun.31	July 31	Aug. 31	sen.31	Oct.31	Nov.31	Dec. 31
INVESTMENT CASH POTUS (IPP)	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Buildings and structures	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Machinery and equipment	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Livestock population	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Other investments	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
OPERATING CASH POTW (UDP)	1511,6	1524,2	1516,1	1521,8	1520,6	1526,3	1525,1	1527,4	1533,0	1531,9	1537,5	-1392,2
Proceeds from product sales	2501,3	2501,3	2501,3	2501,3	2501,3	2501,3	2501,3	2501,3	2501,3	2501,3	2501,3	2501,3
Costs total	989,6	977,1	985,1	979,5	980,6	975,0	976,1	973,9	968,2	969,4	963,7	3893,4
Variable costs	930,9	920,6	930,9	927,5	930,9	927,5	930,9	930,9	927,5	930,9	927,5	930,9
Fixed costs	21,1	21,1	21,1	21,1	21,1	21,1	21,1	21,1	21,1	21,1	21,1	21,1
Payments of interest on the loan	27,0	24,7	22,5	20,2	18,0	15,7	13,5	11,2	9,0	6,7	4,5	2,2
Accrued taxes and payments	10,6	10,6	10,6	10,6	10,6	10,6	10,6	10,6	10,6	10,6	10,6	2939,2
CASH FLOW (FDP)	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5	-219,5
Payment of the body of the debt	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5	219,5
Own funds	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
including our own funds for co-financing of investments	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
own funds for current expenses	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

own funds to pay for credit	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Credit	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Net cash flow (NFC)	1292,2	1304,7	1296,7	1302,3	1301,2	1306,8	1305,6	1307,9	1313,6	1312,4	1318,1	-1611,6
Cumulative NPD	45864,6	47169,3	48465,9	49768,2	51069,4	52376,2	53681,9	54989,8	56303,3	57615,7	58933,8	57322,1
Cash balance at the beginning of the period	44572,4	45864,6	47169,3	48465,9	49768,2	51069,4	52376,2	53681,9	54989,8	56303,3	57615,7	58933,8
Cash balance at the end of the period	45864,6	47169,3	48465,9	49768,2	51069,4	52376,2	53681,9	54989,8	56303,3	57615,7	58933,8	57322,1
Discounted NPD	516,3	515,7	506,9	503,6	497,7	494,4	488,6	484,1	481,0	475,3	472,2	-571,1
Discounted NPD cumulatively	24589,2	25104,8	25611,8	26115,4	26613,1	27107,5	27596,1	28080,2	28561,2	29036,5	29508,7	28937,6

Report prepared by Global Innovation Trade

This project was performed by the research agency Global Innovation Trade. All our specialists have impressive experience in developing studies and business plans, supported by deep knowledge in various spheres of economics and business, and a strong information base.

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